HEALTH PROMOTION FOR GAY, BISEXUAL, QUEER AND OTHER MEN WHO HAVE SEX WITH MEN (MSM) AND TRANSGENDER WOMEN (TW)

HPV and ANAL CANCER SCREENING

TREATMENT and CARE

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GMSH
GAY MEN'S SEXUAL HEALTH ALLIANCE

ABOUT THIS FACTSHEET

This fact sheet is for front-line, outreach staff, public health staff, others providing sexual health care and the communities of men who have sex with men (MSM) and transgender women (TW). In the 2024 International Anal Neoplasia guidelines, MSM and TW living with HIV are prioritized for anal cancer screening.

WHAT IS HPV?

Human papillomavirus (HPV) is a group of over 200 viruses that can cause cancer and skin warts, including anal warts. HPV strains (types) are divided into high-risk types, which can lead to cancer, and low-risk types, which usually cause warts.[1]

Nearly 50% of HPV infections are due to a high-risk strains, with around 14 identified high-risk strains. These HPV strains can cause cancer in the anus (the outermost part of the bum), mouth, throat and penis, as well as the cervix, vagina and vulva in AFAB—assigned female at birth—individuals.[1-5]

Most of the time, the immune system controls HPV infections to stop them from causing cancer.[1] Due to a higher likelihood of having weakened immune systems, people living with HIV (PLHIV) are more likely to get anal cancer from the virus.[1,3,6-11]

HOW DO YOU GET HPV?

HPV can be spread non-sexually or sexually through vaginal, front hole, anal, or oral sex.[1,12]

Nearly all sexually active people will become infected with HPV at some point after becoming sexually active.[1,13] Sharing materials such as towels or other items with people living with low-risk HPV types can also transmit the virus.[2]

HOW DOES HPV CAUSE ANAL CANCER?

HPV can cause abnormal cell changes, or 'dysplasia,' over several years, especially when high-risk strains are not cleared by the immune system. If left untreated, progression may occur to precancer and then cancer, especially if HPV infection persists for years rather than being cleared by the body.[1-3,6-8,14] This may happen in many parts of the body, including the anus.[1,3]

The MSM and trans women communities, and particularly older PLHIV in these groups, are much more at risk than the general population to get anal cancer from HPV infection.[1,3,4,6-8,11,15] Other factors to consider include—but are not limited to—cigarette smoking, having anal warts, having multiple sexual partners, anal-receptive intercourse (bottoming) and immunosuppression (e.g., organ transplantation).[1-3,9,11]

SYMPTOMS OF HPV, WARTS AND ANAL CANCER

Some people can have HPV in their bodies for weeks to a lifetime without symptoms. However, in others, the strain of HPV will result in either warts or cancer.[13]

For high-risk HPV types, people may not notice anything for years until cancer growth causes lumps, itchiness, discharge, bleeding, pain or pressure in or around the anus and/or a change in bowel habits.[1,16]

For low-risk HPV types, warts on or around the genitals, anus, mouth or throat are possible.[1] These warts may be light brown, yellow, pink, or flesh-coloured, raised or flat, and broad, looking somewhat like cauliflower.[2,13] The number of warts can vary from one to a large group.[2] They usually do not cause other symptoms, but bleeding, itchiness and pain can occur.[2,13]

SCREENING FOR HPV AND ANAL CANCER

Digital anal rectal examination (DARE), anal pap smear and high resolution anoscopy (HRA) are some methods to screen for anal cancer. The method(s) chosen vary mostly by local availability and cost.[3,15,17]

DARE allows for a healthcare provider (HCP) to check for any warts, lumps, swelling, masses or other irregularities in the bum using a gloved finger. DARE is most useful for detecting some cancer cases early on.[3] It does not check for possible changes in cells made by HPV. For PLHIV and for people who engage in receptive anal sex (bottoming), one DARE is recommended every year.[10]

Anal papanicolaou (pap) smears are performed by putting a small swab into the anus and lower part of the rectum to collect cells that can later be looked at under a microscope. Cells may show changes from "normal"-appearing cells to precancerous and cancerous ones, guiding HCP treatment decisions.[3,10,18]

In HRA, a thin, flexible tube with a light and magnifying device is put in the anus to let the HCP have a view of the anal and rectal areas (deeper inside).[10,19] In people who have more developed precancerous cell changes, cells can also be taken in a biopsy to examine for any HPV-related cell changes. Despite its uses, HRA is not widely available across Canada, making it not a feasible option for most people's care.[10]

PLHIV may benefit from the combination of DARE, an anal pap smear, and HRA (if available) due to many possible false negatives when only an anal pap smear is done.[10]

TW with gender reconstructive surgery may consider testing through neovaginal pap smear(s) by a health care provider (HCP) to look for HPV-related cellular changes, although data on the effectiveness and resource implications of routine screening in this population is lacking.[18]

Speak to your HCP about anal screening using the information from the recent International Anal Neoplasia Society (IANS) guidelines (listed below); you may be referred to another provider for anal cancer screening. If you are not routinely seen by an HCP, such as a primary care physician (family doctor), check out the following service provider directory at **Rainbow Health Ontario**.[20]

RISK FACTORS FOR ANAL CANCER

The risk factors for developing anal cancer include being part of the MSM community or TW community, living with HIV, smoking cigarettes, intravenous substance use and aging. Additionally, in PLHIV, having an AIDS diagnosis and/or having other STI infections may increase the risk.[2,3,21,22] Due to an increased risk of anal cancer in PLHIV, it is important to adhere to antiretroviral therapy to maintain a robust immune system.[5,21,23]

Talk to your partner(s)—current and within the past six months—about any warts, precancer and/or cancer you know about so they can get checked by their HCPs.[2,10] Your HCP can also help notify your partners.[24]

SCREENING GUIDELINES FOR ANAL CANCER

The Anal Cancer HSIL Outcomes Research (ANCHOR) study in 2021 was the largest work in anal cancer research in PLHIV. In this phase 3 trial, 4,446 participants aged 35 years and older with a biopsy-proven anal high-risk precancer helped develop the guidelines for anal cancer screening in cisgender and transgender PLHIV.[11,25-27]

Results from the ANCHOR study concluded that anal cancer is the fourth most common cancer in PLHIV. As well, PLHIV have more types of HPV, and as they age while living with the virus(es), their corresponding risk for cancer increases. The rise in cancer probability is also due to a weaker immune system, which makes it easier for HPV to be become active in the body. The ANCHOR recommends that all PLHIV receive a DARE every year.[11,28]

In 2024, the IANS developed the guidelines for groups at risk for anal cancer.[7] The Centers for Disease Control—CDC—and National Institutes of Health—NIH—announced the new cancer prevention guidelines shortly, based in part on the information presented in the ANCHOR study. The chart below describes priority screening populations based on risk categories, minimum age recommendations to begin screening and methods for anal cancer screening.[7,28]

Figure 1. *Population to screen for anal cancer. People living with HIV and people not living with HIV*

RISK CATEGORY A: PEOPLE LIVING WITH HIV	WHEN TO SCREEN	METHOD OF SCREENING
MSM living with HIV	Age 35	**Digital rectal examination + Anal cytology and/or anal HPV testing**
TW living with HIV	Age 35	
MSM and TW not living with HIV	Age 45	
Men living with HIV (not MSM)	Age 45	
Women living with HIV	Age 45	
History of vulvar dysplasia or vulvar cancer (in cisgender women and some TM)	Within one year of diagnosis	
Solid organ transplant recipient	Ten years post-transplant	
RISK CATEGORY B: SHARED DECISION MAKING WITH A HISTORY OF _____		**Abnormal results** ↓ / ↓ **Normal results**
Perianal warts for male and female	Age 45	**High Resolution Anoscopy** / **Repeat screening in 1-2 years**
Cervical/vaginal cancer	Age 45	
Cervical/vaginal HSIL*	Age 45	
Persistent HPV 16+	Age 45	
Other immunosuppression or on chronic steroid therapy	Age 45	

MSM, men who have sex with men; HIV, human immunodeficiency virus; HPV, human papillomavirus; HSIL, high-grade squamous intraepithelial lesions; TM, transgender men; TW, transgender women

*HSIL can develop into cancer

Figure adapted from https://onlinelibrary.wiley.com/doi/10.1002/ijc.34850.

TREATMENT FOR HPV, WARTS AND ANAL CANCER

There is no treatment to clear HPV. Instead, the effects of HPV infection are treated on a case-by-case basis.[10,13]

A few options exist to treat HPV-related warts, including on-site medicines, freezing therapy and surgery. All treatments are done by HCPs, and most are completed over the course of several appointments. However, while anal warts may be removed from these methods, they may come back and require additional therapy sessions.[2]

Likewise with anal wart treatment, local medications, freezing and surgical options exist to combat anal precancer, as well as laser and laser and electrocautery (burning) therapies.[10,29-31] Treating cells at this precancerous stage may cut the progression to anal cancer by over 50%.[6]

When someone has anal cancer, a combination of surgery, chemotherapy and radiation therapy may be used.[8,9] The goals of these tools can range from taking out the cancer altogether to slowing down or limiting its spread in the body.[9] Factors which guide HCPs on how to treat include the following: how far the cancer has advanced in the body, whether the person is living with HIV, if any cancer has remained after one round of treatment and if it has returned from a previously successful round of therapy.[10,16]

In the ANCHOR study, it was found that there was a 57% reduction in anal cancer occurrence when people were treated during the anal precancer stage compared to those who were not. Early diagnosis and treatment may prevent anal cancer.[11]

HPV INFECTION PREVENTION, VACCINE AND ANAL CANCER

Since HPV is usually acquired through sexual contact, consistent and correct barrier use (e.g., condoms and dental dams; use new ones with each new partner) during sex, male circumcision (foreskin removal; helpful for lowering chances of penile HPV infection) and having fewer sexual partners may lower your chances of getting HPV.[1,3,10,32-37]

Condoms can include external ones for penises and sex toys, and internal ones for putting inside the anus and/or front hole.[10,32-35] More information on how to use **internal**[32] and **external**[34] condoms is available at **Planned Parenthood**.[32,34]

The use of dental dams is controversial but may lower the chances of getting HPV through oral sex (including rimming), though less effectively than it may protect against other infections such as chlamydia or HIV.[10,34,36] More information on how to use dental dams can be found at **Cleveland Clinic**.[36]

Gardasil® 9 (HPV9) vaccine is recommended for individuals from 9 to 45 years of age, with greater cancer prevention potential in 9- to 26-year olds.[1,37] The HPV vaccine protects against infection from the nine most common types of HPV which cause 80% to 90% of all cases: the two low-risk HPV types that cause most genital warts, and the seven high-risk HPV types that cause most HPV-related cancers.[1,37] In people aged 15 years and older, the HPV9 vaccine is given in three doses over six months.[37] The vaccine is recommended and free of charge in

Ontario for grade 7 students (regardless of gender identity or sex), as well as MSM and transgender individuals who have sex with men and are 26 years of age or younger, though it is available to others as well for about $215 per dose.[37] Even if you already have one or more types of HPV, the vaccine may be useful to protect against others.[10] Talk to your doctor to find out if HPV vaccination might benefit you.[37]

Older adults may benefit less from the vaccine because they are more likely to have been exposed to HPV already. Therefore, vaccination is not routinely recommended for people in this age group.[38]

In addition to sexual health choices, a diet rich in whole fruits, dark green vegetables and beans may have a protective effect against getting the high-risk type of HPV.[39]

SEX, HPV AND STIGMA

Discussing sexual health can be difficult for many people. Open conversations with your HCP about sexual practices, including anal and oral sex, can help address HPV risks and prevent further complications.[13,40]

Talk to your HCP about butt health including the new guidelines for people at risk of anal cancer, and if you can schedule an appointment for DARE and anal pap smear and/or HRA. If you are between 9 and 45 years of age, speak to your HCP about the HPV9 vaccine as well.[37]

For more information on tips for discussion with your HCP check out the **Finding and Building a Therapeutic Relationship with your Healthcare Provider(s)**.[41]

SEX POSITIVE CARE

Sexual health practices should be considered alongside sexual pleasure. When discussing their sexual practices and sexual health, MSM and TW should feel empowered by their HCPs to take control of their sexual wellbeing.[9]

For example, HPV, warts and anal cancer—and their respective treatments—may restrict how you have sex, either temporarily or permanently. However, by talking about changes in your body with your HCP, healthy alternatives can be explored that may still allow for a satisfying sex life. Every situation is unique, speak to your HCP about HPV and anal cancer screening.[9]

More helpful sex positive messaging can be found at the GMSH campaign **The Sex You Want**.[42]

CANADIAN RESEARCH ON ANAL CANCER SCREENING AND HPV

In Ontario, a 3-year research study, Anal Cancer Equity in Screening Services Study (ACCESS) is in the initial stages of developing modules for clinicians on the implementation of equitable anal screening practices as recommended in new clinical guideline. The second research study is **The PEACH Study**, "CTN 330: Predicting and evaluating anal cancer in HIV with novel biomarkers." For more information, contact the principal investigator, **Dr. Grennan**.[43,44]

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