Improving lives through the prevention and treatment of anogenital & HPV-related diseases

ASCCP Practice Advisory: Anal Cancer Screening

The International Anal Neoplasia Society (IANS) published the first comprehensive anal cancer screening guidelines in January 2024.[1] Subsequently, the first US guidelines for anal cancer screening in persons with HIV developed by a panel of experts and co-sponsored by The Office of AIDS Research (OAR) in the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC), and the HIV Medicine Association of the Infectious Diseases Society of America (HIVMA/IDSA) were published in July 2024 in the Guidelines for the Prevention and Treatment of Opportunistic Infections in Adults and Adolescents with HIV.[2]

Anal cancer, like other lower genital tract cancers, is mediated by human papillomavirus (HPV). Screening and management recommendations are similar to those for cervical cancer prevention. Just as in cervical cancer screening, the goal of screening for anal cancer is the *detection of anal high-grade squamous intraepithelial lesions* (HSIL), which when treated demonstrated a reduction in anal cancer rates in people with HIV by almost 60%.[3] The IANS guidelines appreciate that although anal cancer is rare in the general population, there are high risk populations that would benefit from anal cancer screening. The guidelines categorize these populations into two risk groups based on their incidence rates of anal cancer compared to the general population (Figure 1, Table 1).[1] The NIH/CDC/IDSA guidelines are in agreement with the IANS guidelines on the HIV populations to screen.[2]

Risk Category A includes high-risk groups with an anal cancer incidence of at least 17 per 100,000, which is ten times higher than the general U.S. population's rate of 1.7 per 100,000 person-years (p-y). The highest risk category encompasses men who have sex with men (MSM) and transgender women (TW) with HIV who are recommended to start screening at ages 35 and older due to their incidence of >70/100,000 p-y. Women and men who have sex with women (MSW) with HIV are recommended to start screening at age 45 due to their respective incidences of over 25 and 40 per 100,000. Additionally, MSM and TW without HIV should begin screening at age 45, with incidences of over 18 per 100,000. Other groups in this category include individuals with a history of vulvar HSIL or cancer, recommended for screening within a year of diagnosis due to an incidence of over 40 per 100,000, and solid organ transplant recipients ten years post-transplant, given their incidence rates exceeding 25 per 100,000.

Risk Category B includes populations with incidences below ten per 100,000p-y. IANS emphasizes shared decision-making for screening until more data on outcomes become available.

This category includes individuals age 45 and older with a history of cervical or vaginal cancer, cervical or vaginal HSIL, perianal warts, persistent cervical HPV 16, and other immunosuppressed individuals, such as those with rheumatoid arthritis, lupus, Crohn's disease, or ulcerative colitis.

Both the IANS and NIH/CDC/IDSA guidelines recommend a screening program that refers patients with abnormal screening test(s) to high resolution anoscopy (HRA), a diagnostic procedure to detect and treat precancer and effectively prevent anal cancer.[4] Both guidelines also recognize the limitations this may impose on communities without access to HRA. If HRA is not available, Risk Category A patients (PWH, SOT recipients, women with history of vulvar HSIL and cancer and MSM/TG without HIV) should be screened using assessment of symptoms and digital anal rectal exams (DARE).[5]

The IANS guidelines recommend specific screening tests for anal HSIL and cancer, including anal cytology, high-risk HPV (hrHPV) testing, and combinations of these tests.[1] It is important to note that although high-risk HPV testing in the anal canal is not approved by the US Food and Drug Administration, it has been shown to be a highly sensitive test for detecting anal precancer and cancer.[6] Anal cytology alone is considered acceptable, with high-resolution anoscopy (HRA) referral for individuals with abnormal cytology results. In settings with limited HRA capacity, immediate referral is prioritized for those with high-grade cytology, while others may have repeat testing within 12 months. Triage strategies using hrHPV testing to stratify cytology results are also endorsed, particularly for reducing immediate HRA referrals. Primary hrHPV testing is acceptable, with individuals testing positive recommended for immediate HRA referral or repeat screening within 12-24 months if negative. Co-testing with cytology and hrHPV is also acceptable, emphasizing immediate HRA referral for high-risk results. DARE is recommended at all screening visits, serving as an important tool for detecting early anal cancers.

The NIH/CDC/IDS guidelines, like IANS, recommend that all at-risk adults with HIV be assessed at least annually for anal abnormalities (such as pain, burning, or masses) and undergo digital anal rectal examination (DARE).[2] People under the age of 35 years who are symptomatic or show signs of anal cancer should undergo DARE and at least standard anoscopy. Asymptomatic MSM and TW should begin screening with lab-based screening (cytology alone or with hrHPV co-testing) at age 35 years. All other people living with HIV should begin screening at age 45 years. Any patient with symptoms or abnormal screening results should be referred for HRA. The NIH/CDC/IDSA panel did not recommend the use of primary HPV for screening in persons with HIV.

ASCCP acknowledges these two sets of anal cancer screening guidelines and endorses the routine annual practice of DARE for providers who care for patients with lower genital tract dysplasias as identified in risk categories A and B. Additional anal cancer screening tests such as anal cytology or anal high-risk HPV testing may be added, if there is capacity for referral to HRA for abnormal results. Further, the ASCCP recognizes the importance of creating effective cancer prevention programs that rely on screening and access to HRA clinics for follow-up care. The ASCCP recognizes, however, that implementation of these guidelines requires addressing the limited availability of HRA providers, advocating for funding, and building capacity to ensure equitable access to screening resources for high-risk populations.

In summary, providers caring for patients with elevated risk of anal cancer (lower genital tract dysplasia, HIV, etc.) should offer routine annual digital anal rectal exam (DARE). Providers should offer anal cytology and/or high-risk HPV testing if there is availability of referral to HRA for abnormal results.

References

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Figure 1. Populations at high-risk and recommended to undergo screening for anal cancer. Adapted from Stier et al, *Int J Cancer* 2024;154:1694-1702.

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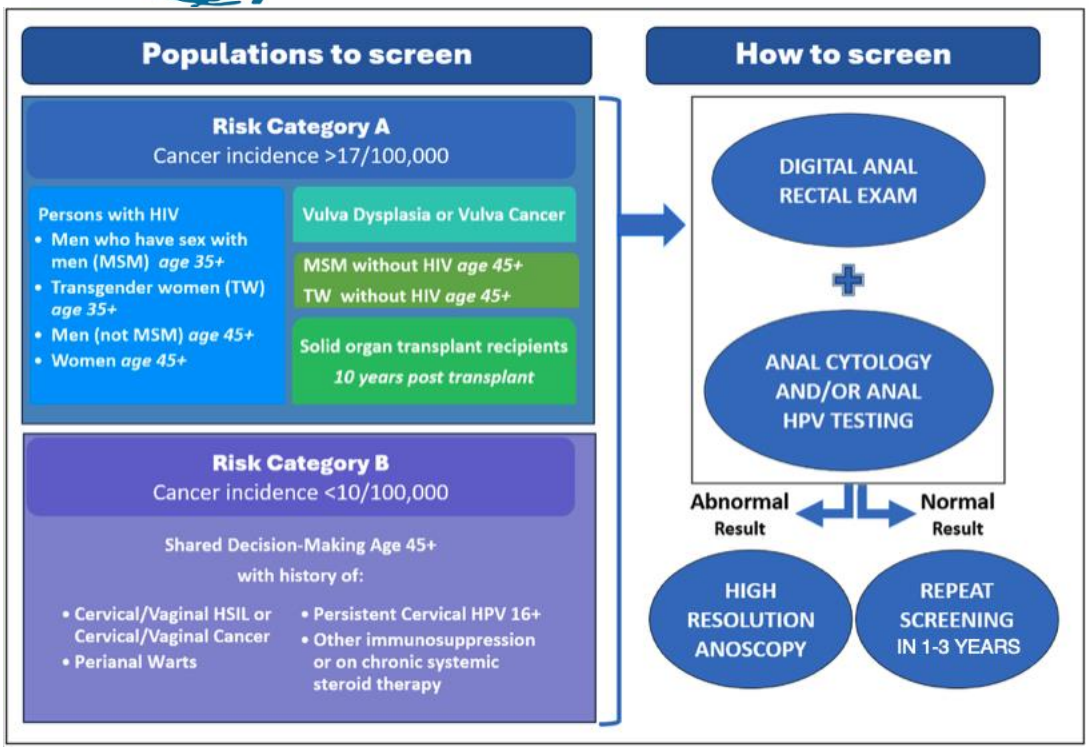

Table 1. Incidence rates of anal cancer by risk group. Based on Clifford et al. *Int J Cancer* 2021.[7]

Risk Group	Incidence rate (per 100,000 persons)
Risk Category A	
MSM and TGF living with HIV age 35+	>70
Vulvar cancer, VIN3	>40
MSW LWH age 45+	40
Women LWH age 45+	25
Solid organ transplant recipients, 10 yrs post-transplant	>25
MSM and TF without HIV age 45+	>18
Risk Category B	
H/o cervical or vaginal precancer or cancer, perianal warts, persistent cervical HPV16+, other immunosuppression	<10