higher mortality rates after they develop cancer, increased observation, vigilance, and screening are required [202].

### Recommendations

#### *Prevention*

- All patients should be asked about tobacco use at every healthcare encounter, and those who smoke should be strongly encouraged to stop smoking and offered smoking cessation assistance, including pharmacotherapy and behavioral interventions.
- Because alcohol increases risk of certain cancers, moderation in alcohol consumption should be recommended.
- Vaccinations against HPV and HBV are essential to reduce the risk of cervical, anal, head, and neck cancers and hepatocellular carcinoma.

#### *Screening and Detection*

- Providers should be vigilant for cancer, especially human oncogenic viral-based cancers, associated with Epstein-Barr virus (EBV), HPV, HCV, and HBV, even if no specific screening is recommended.
- Screening for prostate, breast, lung, and colon cancer should be conducted according to USPSTF and American Cancer Society guidelines for the general population.
- Biennial mammogram screening is recommended for persons aged 40–74 years, per USPSTF guidelines.
- A digital anal rectal exam should be performed annually, whether or not high-resolution anoscopy (HRA) is available.
- Transgender women, cisgender men aged >35 years who have sex with cisgender men, and all other people with HIV aged >45 years should be screened with an anal Papanicolaou (Pap) test if there is access to or ability to refer for HRA (preferred) and treatment. The IDSA recommends HPV testing with cytology only and not just HPV testing alone.
  - For low-grade squamous intraepithelial lesions or worse, the patient should be referred for HRA and HPV testing if aged <45 years. Patients aged at least 45 years should be referred for HRA and HPV testing.
  - All high-grade squamous intraepithelial lesions (HSILs) should be treated, ideally with hyfrecation, and monitored routinely among people with HIV and aged >35 years.
  - All patients with anal cancers should be referred to surgical oncology for treatment.
- Persons with HIV aged between 21 and 29 years should have a cervical Pap test annually. If the results of 3 consecutive cervical Pap tests are normal, follow-up Pap screening should be in 3 years.
  - Abnormal Pap test results require either follow-up colposcopy by a qualified practitioner or repeat Pap test in 6–12 months.
  - For persons aged ≥30 years, cervical Pap tests should be done annually. If the results of 3 consecutive Pap tests without an HPV test are normal, a follow-up Pap should be performed in 3 years. If the Pap test is done with HPV testing and both the cytology and HPV testing are negative, follow-up cervical cancer screening can be done in 3 years after a single Pap smear.
  - Unlike for people without HIV, there is no age limit for Pap screening.
  - If HPV testing reveals HPV16 or HPV16/18, referral for colposcopy is recommended.
- Providers should follow USPSTF screening recommendations for prostate cancer.
  - Shared decision-making for prostate-specific antigen (PSA) testing is recommended for patients aged 50–69 years with at least a 10-year life expectancy.
  - PSA-based prostate cancer screening should be considered for persons of Black or African descent, people with prostates aged 45–49 years with at least a 10-year life expectancy, and persons who have at least 1 first-degree relative with prostate cancer.
- Screening for hepatocellular carcinoma every 6 months by ultrasound with or without alpha-fetoprotein is recommended for those with cirrhosis from any cause, those with chronic hepatitis B, and those with a history of chronic hepatitis C (treated or untreated) and stage F3 or F4 fibrosis.

#### *Special Populations*

- After vaginoplasty, patients should be reminded that screening for conditions related to remaining organs, such as prostate cancer, is still necessary.
- Cancer screening for transgender and gender-diverse persons should be conducted based on guidelines for the organs and tissues present in the individual.
- Among transgender people with prostates, PSA is unreliable for those on androgen blockers and those who have undergone orchiectomy. For those with a neovagina, a neovaginal and rectal exam should be used to examine the prostate.

#### *Evidence Summary*

Acquired immunodeficiency, as encountered among people with HIV, is associated with an increased risk for cancer [203]. As such, interventions that may prevent cancer are essential to HIV care. Healthcare systems should maintain a record of patients' current smoking status. All clinicians should advise patients to stop smoking and document this message at least yearly in the health record. Pharmacotherapy such as varenicline should be offered, as well as referrals for behavioral