

HUMAN PAPILLOMA VIRUS (HPV)

for urologists

HPV: OVERVIEW AND EPIDEMIOLOGY

- Double-stranded DNA. > 200 Genotypes. 42 types are genital and sexually transmitted.
- **Most common sexually transmitted infection (STI)**. 49% prevalence for any type of HPV and 35% for high-risk HPV in men. 50% coinfections (≥ 2 HPV strains).
- **70-80% of sexually active people will come into contact with the virus.**
- HPV 6 and HPV 11 are considered low oncogenic risk but cause genital warts.
- **HPV 16 is the most common oncogenic variant** (20% of all HPV cases), followed by **HPV 18**. About **33% penile cancers** and up to **90% anal cancers** are attributed to high-risk HPV infections.
- Oral HPV is associated in 22.4%, 4.4% and 3.5% with oral cavity cancer, oropharyngeal cancer and laryngeal cancer.

RISK FACTORS

- Early age of first sexual intercourse (SI)
- Promiscuity and a > frequency of SI
- Smoking
- Immunodeficiency, HIV
- Men who maintain SI with other men
- Phimosis
- HPV in the partner
- No use of barrier methods

TRANSMISSION

- **Skin and mucous membrane contact**
- > frequency: oral, vaginal and anal intercourse.
- > **Incidence: HPV 51 and 52**
- > **Prevalence: HPV 16 and 18**
- Can remain inactive for a long time.
- **Most disappear in less than 12 months** (1-42 m)
- Genital warts (condylomata acuminata) favour transmission.

DIAGNOSIS

- There is no approved test for HPV in men.
- **No routine screening.**
- Physical examination to identify lesions (acetic acid)
- Intraurethral condylomas are infrequent and usually limited to the meatus. They can be assessed with urethrocytostcopy.

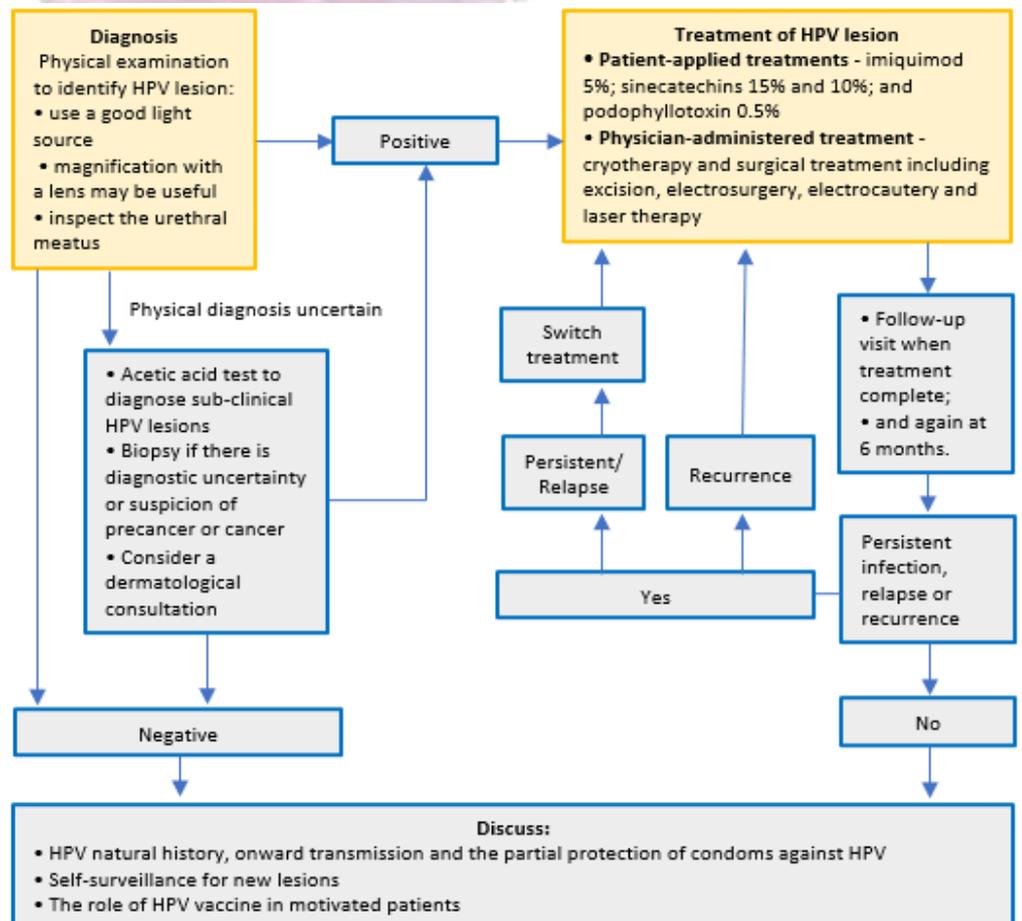
VACCINATION

- Effective in the prevention of external genital lesions, genital warts and HPV-related neoplasms.
- > **efficacy in men who have not previously contracted HPV. Offer before the onset of sexual intercourse.** Recommended for boys-girls 11-12 years.
- **Gardasil®**: 90% efficacy against genital warts and 95% against other high-grade genital lesions HPV-4 (6,11,16,18) HPV-9 (6,11,16,18,31, 33,45,52,58)
- Offer vaccination after removal of high grade anal intraepithelial neoplastic lesions.

CIRCUMCISION has been shown to reduce the incidence of infections such as HIV, syphilis, and HSV-2. May be considered as an additional preventive measure for HPV-related diseases.



Condylomata acuminata: a) penis b) infrapubic



G. Bonkat (Chair), R. Bartoletti, F. Bruyère et al. EAU Guidelines on Urological Infections 2021

Sarier, M., Ceyhan, A.M., Sepin, N. et al. HPV infection in urology practice. *Int Urol Nephrol* 52, 1–8 (2020).

Male sexual partners of women who test positive for HPV do not need to be tested for HPV because: it is normal for them to have HPV, but it does not mean they are at increased risk of developing disease; the partner has no role in the persistence of the virus, and testing for HPV can give inconsistent results.