

# 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.

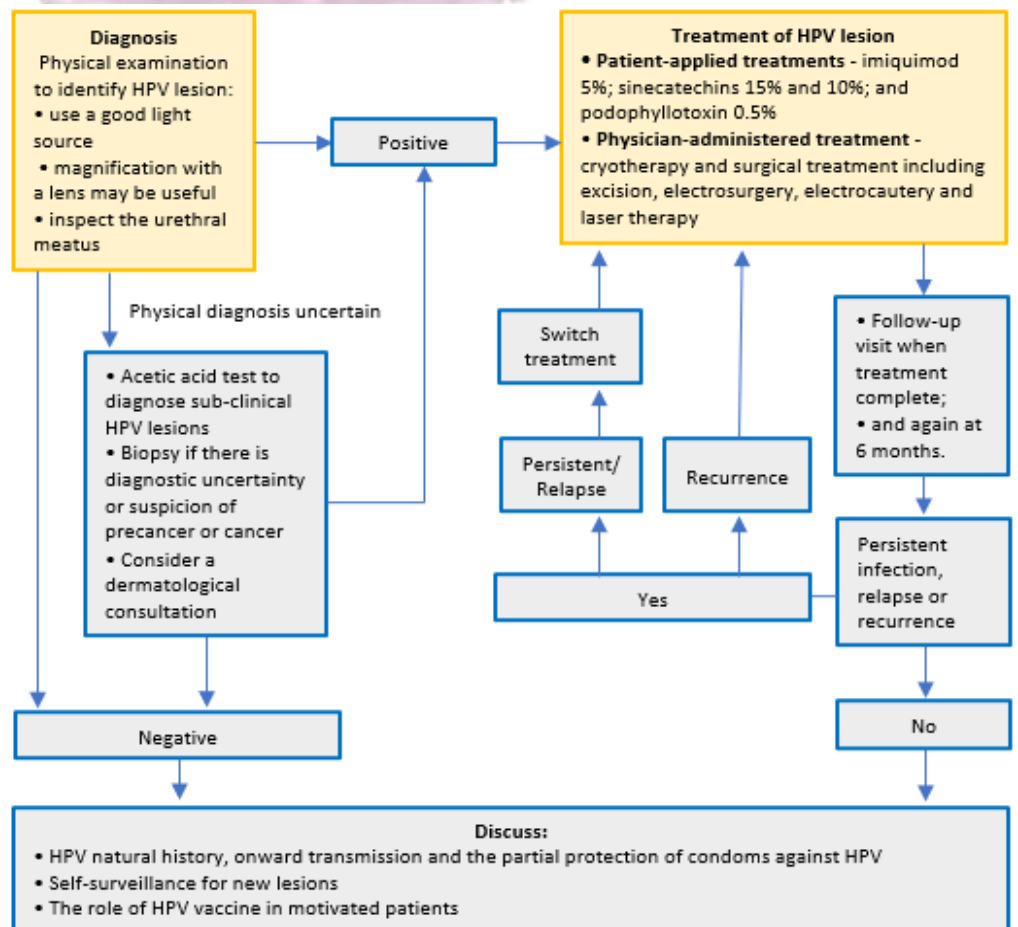
### VACCINATION

- 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



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

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

**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.**