

FOR DENTISTS AND DENTAL TEAMS

# Oral Cavity and Sexually Transmitted Diseases



The aim of this document is to provide dentists and dental teams with straightforward information about various diseases that can be transmitted sexually through the oral cavity. Dentists have a crucial role in recognizing oral symptoms associated with these diseases and providing preventive counseling to their patients. The objective is to enable healthcare professionals to discuss these conditions openly and without taboo with their patients, particularly in a preventive context and in guiding actions to be taken in case of suspicion or detection of a pathology.

## Introduction

Globally, sexually transmitted infections (STIs) remain a significant public health concern, particularly among adolescents and young adults. Oral sex is a common practice in both heterosexual and homosexual relationships. *Dentists should be aware of this practice to recognize oral signs of STIs during routine examinations*. Evidence indicates that human immunodeficiency virus (HIV) can be transmitted through oro-genital contact from penis to mouth and vagina to mouth. Although less likely, transmission from mouth to penis has also been reported. While the risk of HIV transmission through oral sex is significantly lower than through vaginal or anal intercourse, it still carries risks of transmitting other infections such as human papillomavirus (HPV), hepatitis C, and herpes simplex virus (HSV). Additionally, oro-anal transmission poses risks of hepatitis A and B transmission.

The relative importance of oral sex as a transmission route for viruses may increase as higher-risk sexual practices are avoided due to concerns about HIV.

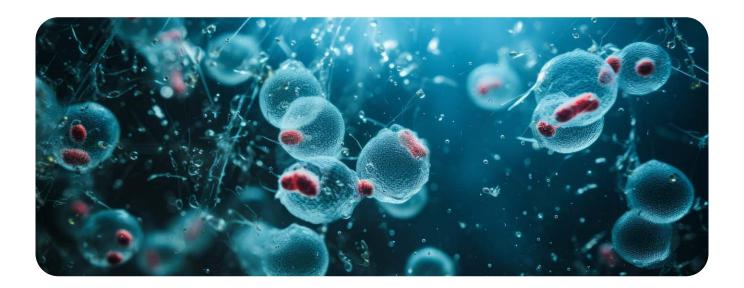
# Chlamydia trachomatis and Neisseria gonorrhoeae

Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) can infect various anatomical sites, including the urogenital, anorectal, and oropharyngeal tracts. Transmission between the oropharynx and urethra is well-documented. Asymptomatic carriage among individuals consulting after oral sex is relatively common, with rates around 3.5% for CT and 3.1% for NG.

These infections are often asymptomatic, making screening essential for diagnosis. Patients with oral gonococcal infections may present with painful pharyngitis and lymphadenopathy. *Dentists play a crucial role in detecting these symptoms during routine oral examinations, which can lead to timely diagnosis and treatment.* Untreated gonococcal infections can lead to severe complications such as pelvic inflammatory disease, infertility, ectopic pregnancy, and chronic pelvic pain in women. In men, complications may include epididymitis and, rarely, infertility.

#### **Treatment**

- Antigonococcal Therapy: Ceftriaxone 1 g IM or IV in a single dose. If contraindicated, therapy should be guided by an antibiogram.
- Anti-Chlamydia Therapy: Doxycycline 200 mg per day (in two doses) for seven days or azithromycin 1 g orally in a single dose.



# **Syphilis**

Syphilis, caused by Treponema pallidum, is transmitted through oral, vaginal, and anal sex, as well as from mother to child during pregnancy or through blood transfusion.

- **Primary syphilis:** Characterized by a chancre at the site of infection, often appearing on the tongue, palate, gums, or lips. **Dentists are often the first healthcare professionals to detect these oral lesions.**
- Secondary syphilis: Manifests with fever, lymphadenopathy, rash, and condyloma lata.
- Latent syphilis: Asymptomatic stage detectable only through serologic tests.
- **Tertiary syphilis:** May appear years later with severe complications such as cardiovascular disease, gummatous lesions, or neurosyphilis.
- Neurosyphilis can develop in any stage of syphilis.

As syphilis is a preventable disease, using condoms consistently and correctly is the best way to prevent syphilis and many other STIs. Syphilis can also spread through contact with other areas of the body not covered by a condom, including genitals, anus and mouth. People at higher risk of infection should be tested at least once a year.

## Treatment

Penicillin remains the first-line treatment for all stages of syphilis. A single dose of long-acting benzathine penicillin G (2.4 million units IM) is highly effective.

# **Human Immunodeficiency Virus**

Human immunodeficiency virus (HIV) can be found in blood and bodily fluids, including saliva. However, oral transmission is rare due to inhibitory factors in saliva that reduce viral replication.

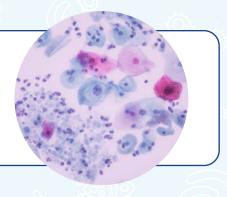
#### **Oral Manifestations**

- Oral candidiasis: **Dentists can identify this condition during routine examinations, as it may indicate underlying HIV infection, emphasizing the importance of early diagnosis and referral for appropriate medical care.**
- · Linear gingival erythema
- Necrotic gingivitis/periodontitis
- Oral herpetic lesions
- · Oral hairy leukoplakia
- · Cytomegalovirus reactivation
- · Kaposi's sarcoma

Highly Active Antiretroviral Therapy (HAART) should be initiated as early as possible. Post Exposure Prophylaxis with antiretroviral medications is recommended after some occupational and nonoccupational exposures when HIV acquisition is possible.

## **Trichomonas**

Trichomoniasis, caused by Trichomonas vaginalis, is one of the most common curable STIs, associated with complications such as preterm birth and increased risk of HIV acquisition. It is easily treated with oral metronidazole, though resistance is increasing.



# **Hepatitis**

Hepatitis viruses can be transmitted through contact with infected blood, sexual activity, and contaminated food or water. Oral signs of liver damage may include jaundice, oral bleeding, petechiae, and ecchymoses. *Dentists can observe these signs during oral examinations and refer patients for further medical evaluation.* 

#### **Treatment and Prevention**

- Hepatitis A and E: Mainly symptomatic treatment.
- Hepatitis B: Nucleoside/nucleotide analogs and PEG-interferon.
- Hepatitis C: Antiviral therapy for most patients.
- Hepatitis D: Interferon remains the only effective treatment.

Vaccination against hepatitis B is recommended. There is no vaccine for hepatitis C, but prevention through hygiene practices is essential.

# Herpes

Herpes viruses, particularly HSV-1 and HSV-2, can be transmitted through mucosal contact during oral sex. Primary infection with HSV-1 often presents as acute herpetic gingivostomatitis. *Dentists can provide early diagnosis and advice on preventing the spread of herpes*.

#### **Prevention and Treatment**

- Avoid oral contact and sharing objects when symptomatic.
- · Valaciclovir is effective for managing recurrent episodes but does not prevent transmission.

# **Human Papillomavirus (HPV)**

HPV is commonly transmitted through mucosal contact during sexual activity. Some subtypes are associated with a risk of oropharyngeal cancer.

Oral HPV Diseases

- Squamous papillomas
- · Oral warts
- · Condyloma acuminata
- · Focal epithelial hyperplasia

Dentists may detect HPV-related oral lesions during routine check-ups, emphasizing their preventive role as HPV vaccines have significantly reduced infection rates and related diseases.

# **Conclusion and Prevention Strategies**

## **Primary prevention**

- · Screening in high-risk situations
- · Protected sex (condoms, dental dams)
- Single-use equipment for intravenous drug users
- · Systematic screening of blood donors

#### Secondary prevention

- · Early detection and treatment of STIs
- Collaboration between healthcare professionals to ensure timely diagnosis
- · Detailed patient assessments, including sexual history

Education and counseling are essential in preventing and controlling STIs. Addressing key aspects of sexual health, referred to as the Five P's (Partners, Prevention of pregnancy, Protection from STDs, Practices, and Past history of STDs), creates opportunities for healthcare professionals to offer tailored advice. Motivational interviewing can help patients achieve risk-reduction goals, ultimately improving both individual and public health outcomes.

**Dentists play a crucial role in identifying oral manifestations of STIs.** Early detection and referral can prevent complications and further transmission. Discussing sensitive topics such as sexual history should become a standard part of patient assessments to enhance prevention and control efforts.

It is also important to emphasize that standard daily protective measures are generally sufficient. There is no need for excessive precautions or overprotection, which can lead to unnecessary fear or stigma. Most importantly, patients affected by these infections should never be subject to discrimination. A respectful, ethical, and inclusive approach is essential to ensure equitable and compassionate care.



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