Term	Content topic
Sexually transmitted diseases (STDs)	are infections that are passed from one person to another through sexual contact. The causes of STDs are bacteria, parasites, yeast, and viruses. There are more than 20 types of STDs, including: • Chlamydia • Genital herpes • Gonorrhea • HIV/AIDS • CPV • Syphilis • Trichomoniasis
Syphilis , synonym-lues	is a chronic systemic infectious disease with a rhythmical undulating variable course, which is predominantly transmitted sexually and which affects all organs and systems of human body.
Etiology	Syphilis is caused by Treponema pallidum (Treponema pallidum), belonging to the class of Spirochaetales, family of Treponemaceae, genus of Treponema. It received its name because of a very poor ability to paint. Treponema pallidum has the form of a thin spiral of width of 0.2 jim and a length of 5-15 urn. Its 8- 12 curls are placed at the same distance from each other. They are very mobile and constantly carry out sliding (forward and backward), rotational, pendulum and contractile (wavy) movements. The small number of surface antigens (protein, polysaccharide, lipid) in Treponema pallidum determines its weak immunogenicity and helps to quite successfully counteract antibodies and lymphocytes of the human body. As facultative anaerobes Treponema pallidum finds the optimal conditions for its location and development in the lymphatic system. Treponema pallidum is unstable to drying and high temperature (at 55 °C it dies after 15-20 min.). The optimum temperature for its existence is +37 °C.
Epidemiology	Syphilitic infection occurs only in humans. According to the WHO estimates (eng - WHO) about 15 million people in the world are infected with syphilis each year. Today, the disease is

	considered by experts as well as a co-factor contributing to HIV - infection.
Sources of infection	The source of infection is the sick person, especially with infectious (active) manifestations of primary and secondary syphilis.
Ways of infection	There are three main ways of infection with syphilis: *sexual* - in case of genital, anal and oral contacts; *professional* - during surgery, instrumental examination; *transfusion way* - in the case of a direct penetration of Treponema pallidum in the blood, particularly during blood transfusions, medical manipulations (cutting, an injection during surgery). *transplacental*-from sick pregnant woman to the fetus through the placenta.
Immunity	True (sterile) or artificial immunity in case of syphilis in human does not exist, as there is no natural immunity. After infection only unsterile (infectious) immunity gradually develops, which is caused by an allergic changes in the body as a result of the disease-causing agent in it. When recovering infectious immunity disappears. Reinfection - is recurrent disease of syphilis in human who had previously been sick with it, and did not fully recover from it, that manifested itself as the absence of any clinical symptoms, and persistent negative reaction of such person in all serological tests.
General course of syphilis and its classification.	Syphilis infection is characterized by the cyclical type of clinical course which is manifested by a certain sequence of occurrence of the external symptoms, the change of periods of active and latent clinical course. In the clinical course of syphilis infection the following periods and forms are defined: **1. Incubation period**- from the moment of infection to appearance of the hard chancre. **2. Primary period (syphilis Iprimarid**) - stage of the disease

	from the moment of appearance of hard chancre to the development of secondary syphilides. It consists of: • *seronegative (syphilis I seronegativa)* syphilis with persistently negative serological reactions in the presence of clinical symptoms; • *seropositive (syphilis I seropositiva)* syphilis with positive serological reactions in the presence of clinical symptoms; • *latent (suphilis I latens)* syphilis, which is characterized by the absence of specific clinical manifestations in patients. **3. Secondary period (syphilis II secundaria)** stage of the disease, which is characterized by polymorphic rash (papules, macules, pustules) on the skin and mucous membranes and their determined staging, namely: • *secondary recent syphilis (syphilis II recens)* - period, characterized by numerous polymorphic eruptions on the skin and mucous membranes, polyadenitis, the presence of residual symptoms of the hard chancre and strongly positive serological reacti • ons; • *secondary recurrent syphilis (syphilis II recediva)* period of secondary syphilis characterized by a small polymorphic grouped rash; • *secondary latent syphilis (syphilis II latens)* - period of the disease, which is clinically latent and manifested only by positive serological reactions. **4. Third syphilis (syphilis HI tertiaria)** - stage, characterized by the da of internal organs and nervous system. **5. Latent syphilis (syphilis latens).** The latent syphilis includes such cases of syphilis infection, in which serological reactions are positive, but there are no clinical signs. The following variants are possible:

	• *premature latent syphilis* (syphilis latens praecox), when less than two years passed from the moment of infection, • *tardive latent syphilis* (syphilis latens tarba), when two years and more passed from the moment of infection, • *unspecified latent syphilis* (syphilis ignorata), when the period of infection can not be specified. **6. Congenital syphilis (syphilis congenita)** occurs when infection with Treponema pallidum is caused by ill mother in the period of intrauterine growth. It iscustomary to distinguish the following types: • *premature congenital syphilis (syphilis congenita praecox)* - syphilis of fetus and of children up to two years; • *tardive congenital syphilis (syphilis congenita tarda)* in children older than two years; • a *latent congenital syphilis (syphilis congenita latens),* in case of which the clinical manifestations are absent, and laboratory parameters of cerebrospinal fluid are normal. **7. Syphilis of nervous system (neurosyphilis).**
General principles of diagnostics.	Diagnostics of syphilis is based on: the presence of specific clinical manifestations on the skin and mucous membranes; the history data sexual contacts; the positive results of laboratory tests. If the rash elements that are not accompanied by subjective sensations are present on the skin, genitals and mucous membranes, one should think that it may be manifestations of syphilitic lesions. It is desirable to establish a patient's sexual contacts over the past few months. Spectrum of laboratory methods for diagnosis of syphilis is composed of the direct tests that detect causative agent of syphilis, or its DNA or of the large number of indirect mainly serological methods of studies.

Primary period of syphilis	Primary period of syphilis *(syphilis Iprimaria, lues primaria)* - stage of the disease from the appearance of primary sore (hard chancre) to the appearancef of secondary syphilides. **Incubation period** - this is a period of development of a specific infection in the human body, which begins with the moment of infection and continues to manifestation of the first clinical signs of the disease. Its duration makes up an average of 3-4 weeks. **Clinical picture.** Primary period of syphilis begins with a primary syphiloma, or hard chancre, and lasts for about 6-7 weeks before the onset of multiple lesions (secondary syphilides) on the skin and mucous membranes. 7-8 days after the formation of the had chancre, increase in the size of lymph nodes becomes noticeable (regional scleradenitis or specific bubo). This regional scleradenitis has fairly typical symptoms: tightly elastic consistency, non-inflammatory nature, focus location, absence of cohesion of nodes with skin, their considerable mobility. Given Wasserman reaction primary period of syphilis is divided into primary sero-negative (first three weeks), and primary sero-positive (following three-four weeks). In most cases, chancre is localized on the genitals. Chancre can appear on other areas of penetration of the agent (the area of the rectum, mammary gland, tunica mucosa of mouth).
Hard chancre	is a painless saucer-shaped ulcer or erosion, with smooth edges without visible inflammation manifestations, on the bottom of which the infiltration of the cartilaginous hardness, or tangible induration like a thin film and shine are formed. There are clinical varieties of hard chancre depending on the number of formations, the localization of process, anatomical peculiarities of lesions (single, multiple, erosive, ulceration, genital, estragenital, large and small in size). **Clinical signs of the classic hard chancre:** morphological element in the form of erosion or ulceration; the bottom of the color of raw meat; the chancre is of regular round or oval form;

	edges are not saped, are clearly lined up, saucer-shaped and at the same level of the skin, if chancre is ulcer; size of 0.7-1.5 cm; lesion focus is painless and without inflammation swab around the periphery; chancre erosive surface is smooth and shiny; surface of the ulcer chancre has a small hemorrhage, and is sometimes covered with purulent layering; significant density of edges and bottom during palpation; skin around the elements of the rash is not changed; presence of concomitant regional scleradenitis; infiltration under erosion after its epithelization persists for several weeks, and then fully and completely resolves; ulcerative chancre heals without treatment in 6-9 weeks, leaving a hypochromic scar.
Atypical forms	There are also often atypical forms of hard chancres as indurative edema, chancre-felon and chancre- amygdalitis **Indurative edema** is localized mostly on the labia - in women, as well as in the foreskin and scrotum - in men. Due to lesions of Treponema pallidum of lymphatic vessels, edema area increases significantly, is compacted, acquires a kind of pale pink or bluish-red coloration. **Chancre-felon** clinically resembles an ordinary felon, is localized on the nail phalanx in the area of periungual nail wall, usually of the index finger. Finger becomes swollen, it swells in the shape of clubbell and has a bluish-red color. Chancre-felon often takes the form of a deep ulcer in the shape of a crescent, with rough edges and the bottom covered with a dirty-gray fur. Patients feel a sharp throbbing, shooting pain. The elbow and axillary lymph nodes that are often painful during palpation are increased. **Chancre-amygdalitis** is characterized by an increase, density and hyperemia of one tonsil with formation of neither erosion nor ulceration. The border of a redness is clear, pain is slight, overall temperature reaction is missing. Regional lymphadenitis of submandibular and cervical lymph nodes is developing. The process differs from angina by the unilateral lesion, the lack of significant pain and diffuse hyperemia of the mucous

	membranes of the mouth, and the general condition of the patient is normal. The clinical course of chancre can be complicated. The vulvitis, vulvovaginitis develops in women, in men balanitis (inflammation of the epithelium of the balanus), balanoposthitis (balanitis in combination with inflammation of the inner layer of the foreskin), phimosis (narrowing of the foreskin ring). Severe complications of hard chancre include mortifying.\ The second clinically manifested symptom of primary period of syphilis is **regional lymphadenitis**. It becomes apparent at the end of the first week after ppearance of the hard chancre. Its localization is directly related to the place of the chancre appearance. For example, chancre in the genital area causes an increase of the inguinal lymph nodes. Lymph nodes gradually increase in size, become dense, they are not painful, are not connected to each other or with the skin, are mobile; external signs of nflammation are not observed. Some (package) lymph nodes increase mainly in the area close to the lesion.
Diagnostics.	Diagnosis of primary seronegative syphilis should always be onfirmed by detection of Treponema Pallidum in secret from the surface of the hard chancre. In order to confirm the diagnosis of primary syphiloma, classic serological ests of blood, which become positive 3-4 weeks after formation of primary yphiloma, are also used. It is also important to identify the patient's sexual contacts. The main laboratory manifestations of primary syphilis are positive standard srological reactions. Wasserman reaction becomes predominantly positive in three weeks after the appearance of the hard chancre. Since that time, the primary seronegative syphilis enters the stage of primary seropositive syphilis. 4-6 weeks after the appearance of the hard chancre, symptoms indicating generalization of treponemal infection in the body appear. Almost all the lymph nodes increase, i.e., polyscleradenitis develops. At the end of the primary period of the disease, 15-20% of

	patients have other symptoms: increased body temperature, headache and other symptoms of general uneasiness. Primary period of syphilis ends not with healing of the hard chancre, but only with the appearance of secondary syphilides.
Differential diagnostics	In case of differential diagnostics one shall distinguish hrd chancre from erosions or ulcers that occur in other diseases, and are also located primarily in the area of external genital organs. These include traumatic erosions, herpes rash, tuberculous ulcers, skin lesions in case of chancroid, balanitis and balanoposthitis, pyoderma chancriformis, erythroplasia of Queyrat, carcinoma of the skin. Pyoderma chancriformis is most similar to an ulcer in the primary syphiloma: it has a round or oval shape, dense infiltration, is painless, can be accompanied by concomitant scleradenitis. Treponema pallidum in the serum from the ulcer surface are not detectable. Serological tests for syphilis are negative. The itching and burning sensation in the areas of future eruptions precede herpes simplex 1-2 days before the disease. Herpes is characterized by the typical small grouped vesicles with serous contents, as well as surface erosions with polycyclic contours. Chancroid has a short two-three day incubation period, is characterized by the appearance of inflammatory maculo-papules, then pustules, which soon transforms into an ulcer. After the appearance of the first ulcer (parental) as a result of auto-infection, daughter ulcers appear. The edges of these very painful ulcers are swollen, bright red, saped, abundant pus is discharged. The scrapings from the ulcer or from its edges contain streptobacillus of Dyukrey-Unna-Peterson. Erosive balanitis and balanoposthitis are manifested by the painful surface bright red erosions, without density with a thick discharge. There is no regional bubo. Chancriform itchy ecthyma is usually multiple and accompanied by acute inflammatory signs, itching and presence of other symptoms of the scabies, the lack of a density and regional scleradenitis. Traumatic erosion is mainly of linear form, accompanied by acute inflammatory signs, is painful and rapidly epithelialized, accompanying bubo is missing. Carcinoma of skin mainly occurs after the age of 45-50 years; the ulcer edges are turned out, covered with small whitish nodules, the bottom is pitted, covered with necrotic decay foci, slightly bleeding, slowly

	progressing with no scarring. Erythroplasia of Queyrat is manifested by the emergence of the small painless lesions on the balanus, which slowly develops, has clearly lined edges, bright red, velvety, shiny surface.