Syphilis is a sexually transmitted infection caused by Treponema pallidum, a spirochete. Syphilis is known as the "great imitator" because of its varying clinical signs and symptoms. The infection is characterized by episodes of active disease (primary, secondary and tertiary) with latent periods in between. Syphilis is contagious and transmitted in three ways: (1) intimate contact with an infectious lesion (most common) (2) blood transfusion (3) during delivery of a baby he/she may contract syphilis from the birth canal.

Primary syphilis develops 2-6 weeks after exposure as a painless sore (chancre). Chancres commonly develop on the genitalia but also can appear on other parts of the body. These are not rare but are often misdiagnosed. The sores vary in appearance from a single, small ulcer to multiple, hard sores. The chancre heals in 1-4 weeks without treatment. The lesion can be accompanied by swollen lymph glands in the region as well as fever, and discomfort.

Secondary syphilis presents as a rash characteristically on the palms of the hands and soles of the feet. Additionally, the entire body may be involved including the mouth and genitalia. The rash may be elevated, discolored, pus-producing, or eroded. Flat, moist, and warty lesions in the groin and axillae are called condylomata lata. They are usually flooded with spirochetes. The late secondary syphilis lesions are nodular and ulcerative. They are only distinguished from the tertiary form by the time of onset and by the presence of spirochetes in the serum. Lesions are commonly in the shape of rings or semi-rings. Patchy hair loss on the scalp may occur.

Tertiary syphilis develops 5-20 years after the first exposure. Lesions are nodular and ulcerative. Scarring often occurs after the lesions have healed. Tertiary syphilis may also affect other body systems like the brain, blood vessels and eyes. Dementia-like symptoms can also occur.

Latent phases occur between the three stages of syphilis. During these phases no signs or symptoms occur. The only way to verify a syphilis infection during a latent period is to test the patient’s blood.

Diagnosis of syphilis is made from a blood test that uses antigens. A doctor may choose to perform a biopsy of an ulcer to distinguish syphilis from other diseases. Examination of a lesion under a microscope using immunofluorescence can help distinguish a primary and secondary ulcer. A microscope may also be used to identify the spirochete taken from a lesion. If the individual has other body systems involved, other tests like an electrocardiogram, lumbar puncture, or an angiogram may be required.

Penicillin G is the treatment of choice for a patient with syphilis. Currently there is no evidence that T. pallidum has acquired resistance to the drug. If a penicillin allergy exists, tetracycline, erythromycin or ceftriaxone can be used as alternative treatments. A patient also needs to be checked for other sexually transmitted infections including HIV, hepatitis, and chlamydia.