
Diagnosis and management of syphilis on inpatient psychiatric units

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Syphilis, often termed the "great imitator," is a sexually transmitted infection (STI) that can present symptoms similar to many other conditions, including psychotic and mood disorders. Here we review its stages, diagnosis, and treatment.

Stages and Symptoms

- **Primary Stage**
 - 10–90 days post-exposure, patients may exhibit sores or “chancres” on the genitals or in the mouth. These tend to be firm, round, and painless.
- **Secondary Stage**
 - Following the disappearance of the chancres, a pink to brown rash may develop all over the body, with about half of cases showing on palms and soles.
 - “Snail trail” resembling mucous patches may be visible in the mouth.
 - Ocular neurosyphilis is common, often presenting as uveitis.
 - Syphilitic meningitis symptoms include stiff neck, headache, vertigo, and can progress to strokes and seizures if untreated.
 - Other manifestations: fatigue, fever, swollen lymph glands.
- **Latent Stage**
 - If untreated, the infection progresses to a latent phase, which can last for years during which patients are free of any outward symptoms.
 - Many people stay in this stage indefinitely, but if left untreated, about 30% go on to the tertiary stage.
- **Tertiary Stage**
 - Involves invasion of the spirochete into the CNS and can present with general paresis which includes memory loss, mood changes, psychosis, seizures, and dementia.

Diagnosis

- Screen all new psychiatric inpatients due to the significant importance of early detection.
- High-risk populations include men who have sex with men, individuals in commercialized sex, and substance users.
- Start with a non-treponemal test (e.g., RPR or VDRL). If reactive with titers >1:4, proceed to a treponemal test like FTA-Abs or TP-PA.
- A combination of clinical symptoms, CSF abnormalities (pleocytosis, elevated protein, positive VDRL) and brain imaging showing cerebral atrophy help distinguish neurosyphilis from primary psychiatric illness.
- Neurosyphilis—meaning syphilitic infection of the central nervous system— can occur at any stage of the illness.

Treatment

- **Primary to Early Latent Stages:** A single dose of intramuscular Penicillin G.
- **Late Latent Stage:** Three doses of intramuscular Penicillin G weekly.
- **Penicillin Allergy:** Doxycycline 100 mg BID for 14 days – but not for pregnant women.
- **Neurosyphilis:** Intravenous Penicillin G or ceftriaxone for 10-14 days.
- **Jarisch-Herxheimer Reaction:** Post-treatment fever and flu-like symptoms within 24 hours. It's not a penicillin allergy, and supportive treatment suffices.
- **Mood and psychotic symptoms in tertiary Stage:** Atypical antipsychotics like olanzapine, aripiprazole, and quetiapine can help, but once patients progress to general paresis, their response to treatment is poor.