SYPHILIS: Screening, Testing & Treatment

Summary:
Indicated for asymptomatic and symptomatic adults presenting with risk factors for syphilis, and all pregnant women. Interpretation of syphilis serological test results should be based on clinical history, signs and symptoms. If test results are inconsistent with clinical assessment, consult infectious diseases or microbiology specialist.

Screening
- CLIA
- Serological testing should always be performed based on clinical assessment, test chance or rash exudates, and cerebrospinal fluid (see following page).
- If suspected or confirmed syphilis and:
  - Reactive serology
  - HIV co-infection
  - Tertiary syphilis
  - Inadequate serological response to treatment
  - Ophthalmic manifestations
  - Neurological manifestations

Confirmatory Testing
- DFA
- VDRL2
- FTA-ABS
- CSF

SYPHILIS TESTING RECOMMENDATIONS FOR PRIMARY AND SECONDARY STAGE INFECTIONS AND NEUROSYPHILIS

Summary:
Indicated for symptomatic adults presenting with risk factors for syphilis. Interpretation of syphilis serological test results should be based on clinical history, signs and symptoms. If test results are inconsistent with clinical assessment, consult infectious diseases or microbiology specialist.

Screening Test
- DFA
- VDRL2
- FTA-ABS
- Conventional darkfield microscopy

CONFIRMATORY TESTS
- DFA
- VDRL2
- FTA-ABS

REFERENCES:

SYMPOMATIC PATIENTS
Serological testing should always be performed (see previous page).

TEST FOR NEUROSYPHILIS
Diagnosis of neurosyphilis is made based on combination of clinical manifestations and:
- Reactive serology
- Abnormal CSF cell count or protein
- With or without reactive CSF VDRL

If suspected or confirmed syphilis and:
- Neurological manifestations
- Ophthalmic manifestations
- Inadequate serological response to treatment
- Tertiary syphilis
- HIV co-infection

SCREEN ASYMPTOMATIC HIGH RISK INDIVIDUALS
- CLIA
- RPR
- TPPA1
- VDRL

Screening Asymptomatic High Risk Individuals
- Injection drug user
- Sexual contact with individual from high prevalence region
- History of sexually transmitted infection, including HIV
- Men who have sex with men
- Sexual contact with individual from high prevalence region
- Sex worker or client
- Injection drug user

SCREEN PREGNANT WOMEN
- All in 1st trimester
- High risk women: - In 1st trimester AND - At 28-32 weeks AND - At delivery

TEST SYMPTOMATIC INDIVIDUALS
- Serological testing should always be performed.
- Repeat syphilis serology in 4 weeks after initial test to detect possible conversion.

SUMMARY:
SYPHILIS:
Screening, Testing & Treatment

REVIEW

ABBRERIATIONS:
CLIA: Chemiluminescent Immunoassay
RPR: Rapid Plasma Reagin
DFA: Direct Fluorescent Antibody
VDRL: Venereal Disease Reference Laboratory
TPPA: Treponema pallidum Particulate Agglutination assay
FTA-ABS: Fluorescent Treponemal Antibody Absorbance
CSF: Cerebrospinal fluid

1. Although uncommon, other treponemal infections (e.g., yaws, pinta, bejel) may give positive syphilis treponemal screen results. RPR titre >1:4 supports diagnosis of acute infectious syphilis if new elevation in titre and consistent with clinical assessment.
2. If FTA-ABS was also completed a negative result helps to exclude a diagnosis of syphilis.
# Syphilis Treatment and Follow-Up Recommendations

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## Populations

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</tr>
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</table>

## Frequency and Duration

- Benzathine Penicillin G: 2.4 million units IM
- Penicillin G: 3-4 million units IV

## Follow-Up

1. Based on RPR titre for adults, pregnant women, and HIV co-infection
2. In addition, use CSF for neurosyphilis

## Adequate Serologic Response

**Primary**
- 4-fold drop at 6 months
- 8-fold drop at 12 months
- 16-fold drop at 24 months

**Secondary**
- 8-fold drop at 6 months
- 16-fold drop at 12 months

**Early Latent**
- 4-fold drop at 12 months

1. A four-fold drop = 2-tube drop (e.g., change from 1:32 dilutions to 1:16 dilutions).

* Some experts recommend 3 weekly doses (total of 7.2 million units) of benzathine penicillin G in HIV-infected individuals.

** Some experts recommend follow up testing at 1 month after treatment to ensure that non-treponemal test titre is not rising; a rising titre may be indicative of either treatment failure or re-infection.

## Reference


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For more information,
Visit: www.healthunit.org Call: 1-800-660-5853 Email: Contact@healthunit.org