Syphilis

Factsheet for clinicians

The facts

- There is an increased prevalence of syphilis in men who have sex with men (MSM) and Aboriginal and Torres Strait Islander people.
- Syphilis is highly infectious and is transmitted through unprotected vaginal, anal and oral sex and skin-to-skin contact during sex.
- Syphilis increases the risk of both acquiring and transmitting HIV infection.
- There are three clinical stages: primary, secondary, tertiary syphilis (See next page for details).
- Syphilis is asymptomatic in up to half of all cases.
- Reinfection is possible and is frequent in groups at risk (e.g. MSM).

Who should be tested?

Symptomatic patients
Patients presenting with any signs and symptoms of infectious syphilis (e.g. genital ulcers, rash affecting palms or soles, or persistent and unexplained lymphadenopathy).

Asymptomatic patients (groups at risk)
- MSM: at least annually, and more frequently (up to four times a year) for those at higher risk (e.g. men who have had more than ten partners in the last year).
- HIV positive MSM: on each occasion of routine HIV monitoring (three to six monthly).
- Pregnant women: routine antenatal testing (repeat in late pregnancy if at risk of infection/reinfection).
- Sexual contacts of a person diagnosed with syphilis.
- Note: Consider including testing for HIV and hepatitis B in persons at risk.

How is it diagnosed?

- A combination of serology, history and clinical assessment.
- Treponemal specific tests (EIA, TPPA, TPHA): detect antibodies against *T. pallidum*. Usually remain positive for life; if serology is negative repeat testing after two weeks (if there is clinical suspicion of syphilis).
- Non treponemal tests (RPR, VDRL): detect antibodies to lipoidal material released from damaged host cells and possibly cardiolipin released from treponemes. Give an indication of current disease activity and are used to monitor treatment response and diagnose re-infection.
- NAAT (swab of ulcer). NAAT may be positive prior to seroconversion.

How should cases be managed?

- Notify cases to Communicable Diseases Prevention and Control Section via telephone 1300 651 160, fax 1300 651 170 or online at http://ideas.health.vic.gov.au/notifying.asp
- Treat according to current guidelines: www.sti.guidelines.org.au/sexually-transmissible-infections/syphilis
- Early referral or discussion with a sexual health specialist is strongly recommended.
- Advise no sexual contact for seven days after treatment is administered to both the case and contacts.
- Provide education regarding prevention and early symptom recognition.
- Partner notification: contact sexual partners of patients with syphilis at the time of diagnosis; online tools are available to contact partners anonymously via SMS or email (see next page); Partner Notification Officers are available to assist with partner notification (telephone 9096 3367).
- Follow-up:
  - RPR at 3, 6, 12 months to monitor treatment response and screen for reinfection.
  - Ensure that partner notification has occurred.
  - Retest for BBVs following the relevant window period where appropriate.

How should contacts be managed?

- Treat all sexual contacts of syphilis cases without waiting for serological results if their exposure was in the last 90 days.
- Treat with a single dose of intramuscular benzathine penicillin 1.8g (2.4mU).
- Provide education regarding prevention.
### Classification of syphilis

#### Early infection acquired within last two years (infectious syphilis)

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<th>Primary</th>
<th>Secondary</th>
<th>Early latent</th>
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<td><strong>Clinical</strong>: One or more ano-genital ulcers (chancre) present which may vary in appearance. May be in occult site (e.g. rectal or peri-vaginal).</td>
<td><strong>Clinical</strong>: Skin spots or rash, particularly on the trunk, palms and soles. Skin lesions are infectious. Symptoms that can be present include generalised lymphadenopathy, constitutional symptoms, headache, neurological symptoms (especially in HIV+ patients), elevated liver function tests. Primary chancre can still be present.</td>
<td><strong>Clinical</strong>: No symptoms of syphilis. No history of adequate treatment. <strong>Laboratory</strong>: Serology is positive (+EIA, +TTPA, +TPHA). IgM may be negative. RPR is reactive.</td>
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<td><strong>Laboratory</strong>: Serology may still be negative very early on. Repeat serology is recommended. Usually EIA, TPPA, TPHA and RPR will be positive. Presence of IgM can be a strong indicator for early infection. Swab from lesion likely to be PCR +. Demonstration of spirochaetes by dark field microscopy.</td>
<td><strong>Laboratory</strong>: Serology is positive (+EIA, +TTPA, +TPHA). Usually +IgM. RPR is reactive (titre usually &gt; 1:4)</td>
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#### Late syphilis acquired more than 2 years ago or at an unknown time (non-infectious)

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<th>Late latent</th>
<th>Tertiary</th>
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<td><strong>Clinical</strong>: No symptoms of syphilis. No history of adequate treatment.</td>
<td><strong>Clinical</strong>: Characteristic abnormalities of the cardiovascular, skin, bone, brain or other system. <strong>Laboratory</strong>: Seek expert advice.</td>
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<td><strong>Laboratory</strong>: Serology is positive (+EIA, +TTPA, +TPHA). RPR may still be reactive at low titre.</td>
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**Neurosyphilis**: Can occur at any time after initial infection. CSF findings with raised protein and cell count in the absence of other causes of these abnormalities. A positive CSF VDRL is confirmatory.

**Congenital syphilis**: A condition affecting an infant whose mother had untreated or inadequately treated syphilis during pregnancy or delivery.

**Reinfection**: Syphilis at any stage in a previously infected person with a fourfold or greater rise in RPR titre. Reinfection is common amongst MSM, particularly in HIV positive MSM.

### Additional resources

#### Clinical information
- Advice on the diagnosis and management of syphilis and other STIs can be obtained from Melbourne Sexual Health Centre through a doctor’s only information line, phone: 1800 009 903 (Mon–Fri 9:30am–12:30pm, 1:30pm–5:00pm) or through their website www.mshc.org.au
- Australian STI Management Guidelines for Use in Primary Care: www.sti.guidelines.org.au
- Innovative partner notification tools are available to contact partners anonymously via SMS or email. You can undertake partner notification at the time of consultation or strongly encourage your patients to contact their partners themselves. Partner notification tools are available at:
  - Let them know website: www.letthemknow.org.au
  - Drama Downunder website: www.thedramadownunder.info/introduction.
- The Partner Notification Officers (PNOs) from the Department of Health & Human Services are available to assist with partner notification. The PNOs can contact the sexual partners of a person diagnosed with an STI, provide advice and referral for testing. Any identifying information about your patients is kept confidential. The PNOs can be contacted on 9096 3367.

#### Patient information
- The Drama Down Under website: www.thedramadownunder.info/bugs/syphilis

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