
SYPHILIS IN HIV NEGATIVE PATIENTS

MELBOURNE SEXUAL HEALTH CENTRE TREATMENT GUIDELINES

FEBRUARY 2005

Syphilis is caused by the spirochaete *Treponema pallidum*. Syphilitic infection may be divided into congenital and acquired infection. Acquired may be further categorized into early infection of less than 2 years duration, which includes primary, secondary and early latent disease. Late syphilis, of more than 2 years duration, includes late latent and late clinical disease.

DIAGNOSIS

- **Demonstration of spirochaetes** in primary chancres or mucous membrane lesions of secondary syphilis. The lesion is cleaned with saline, squeezed gently, and a drop of expressed exudate placed onto a glass slide. If dark-field microscopy is immediately available, motile treponemes can be seen directly in the wet preparation. If dark-field microscopy is not available, an alternative technique is to allow the sample to dry and to send the slide to VIDRL for detection of treponemes by immunofluorescence.
- **PCR** from the lesion is being evaluated.
- **Serology** is positive at the time of presentation of most primary chancres, but is not a reliable test for suspected syphilitic chancre. Nonspecific (non-treponemal) tests (RPR, VDRL) will usually have become reactive 6 weeks after infection. A non-reactive RPR after 3 months excludes the possibility of syphilis. The RPR is the most commonly used test to assess the activity of disease and monitor response to treatment. In early syphilis, there will be a fourfold drop in the RPR titre over 6 months following adequate treatment. Even without treatment, the RPR titre gradually declines over the years. Specific treponemal tests (EIA Total Antibody, TPHA, FTA-Abs) remain positive for life in most cases,

regardless of treatment.

MANAGEMENT

The choice of treatment in cases of sexually-acquired syphilis depends on clinically staging the infection into:

- Early infection of less than 2 years duration, which includes primary, secondary and early latent disease.
- Late syphilis, of more than 2 years duration, includes late latent and late clinical disease.

A **lumbar puncture** to exclude neurosyphilis is recommended:

- When there are any abnormal neurological signs or symptoms.
- In cases of late latent syphilis when $RPR \geq 16$.
- In patients with late syphilis when a non-penicillin regimen is intended to be used.
- In patients with latent syphilis and co-existing HIV infection.
- When treatment failure is suspected.

Early syphilis:

- Procaine penicillin G 1gm IM daily for 10 days (recommended) OR
- Benzathine penicillin G 1.8gm IM single dose (if compliance suspect) OR
- Doxycycline 100mg twice daily for 14 days (if allergic to penicillin).

Late latent syphilis in HIV negative patients:

- Procaine penicillin G 1gm IM daily for 15 days (recommended) OR
- Benzathine penicillin 1.8gm IM weekly for 3 doses (if compliance suspect)

Disclaimer

The content of these treatment guidelines is for information purposes only. The treatment guidelines are generic in character and should be applied to individuals only as deemed appropriate by the treating practitioner on a case by case basis. Bayside Health, through MSHC, does not accept liability to any person for the information or advice (or the use of such information or advice) which is provided through these treatment guidelines. The information contained within these treatment guidelines is provided on the basis that all persons accessing the treatment guidelines undertake responsibility for assessing the relevance and accuracy of the content and its suitability for a particular patient. Responsible use of these guidelines requires that the prescriber is familiar with contraindications and precautions relevant to the various pharmaceutical agents recommended herein.

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Cardiovascular syphilis:

- Procaine penicillin G 1gm IM daily for 20 days.

Neurosyphilis:

- Benzyl penicillin 2-4gm IV 4 hourly for 10 days, or if outpatient treatment is unavoidable, EITHER
- Procaine penicillin 1gm IM daily plus probenecid 500mg bd for 20 days OR
- Doxycycline 100mg twice daily for 30 days (if allergic to penicillin)

REVIEW

Follow-up after treatment of syphilis

It is essential that all patients treated for syphilis receive close clinical and laboratory follow-up. Quantitative RPR or VDRL tests should be taken at 3, 6, 12 and 24 months after treatment. Follow-up serology is especially important for those patients treated with antibiotics other than penicillin.

Re-treatment should be considered if clinical signs or symptoms persist or recur, if there is a sustained fourfold increase in the RPR titre, or if the initial RPR or VDRL titre fails to show a fourfold decrease within 6 months after treatment of early syphilis. CSF examination should be done when re-treatment is considered.

Non-penicillin treatment regimens

Non-penicillin regimens have not been thoroughly evaluated and should be used only when penicillin is absolutely contraindicated.

Erythromycin is not highly effective and may not prevent congenital syphilis if it is used during pregnancy. Penicillin-allergic pregnant women with syphilis pose difficult problems, and should be managed in consultation with an experienced Sexual Health Physician.

Syphilis and HIV infection

Patients with syphilis should be encouraged to be tested for HIV infection. The possibility of neurosyphilis should always be considered in the differential diagnosis of neurological disease in HIV infection. Case reports have suggested that treatment failures are more common when syphilis occurs in HIV-infected patients. This should be remembered when selecting a treatment regimen and in supervising follow-up.

CONTACTS

Contacts should be tested and treated.