Treatment of syphilis

Early syphilis can manifest as a chancre (primary syphilis); as a rash or condylomata lata (secondary syphilis); or as latent (asymptomatic syphilis), of less than 2 years' duration as confirmed by serology. For treatment, use benzathine penicillin (1.8 g [= 2.4 million units] IM: single dose) or procaine penicillin (1.5 g IM: daily for 10 days). Doxycycline and azithromycin therapy are second-line agents. If the patient is hypersensitive to penicillin, desensitisation is preferred.
Patients should be advised to avoid sexual activity until all mucocutaneous lesions have healed. Sexual partners within the last 3 months should also be treated even if serology for syphilis is negative. Queensland maintains a syphilis register (1800 032 238) where clinicians can access patient information regarding syphilis test results notified by all pathology laboratories as well as information regarding treatment given.

Treatment of early syphilis in a HIV-positive patient is complicated by a small increased risk for neurological complications. Clinical and serological follow-up out to 24 months after therapy is recommended and additional treatment (e.g. benzathine penicillin 1.8 g [= 2.4 million units] IM, once weekly for 3 weeks) is generally recommended.

Late latent syphilis is defined as syphilis of more than 2 years or of indeterminate duration, in the absence of tertiary syphilis. For treatment, use benzathine penicillin (1.8 g [= 2.4 million units] IM: once weekly for 3 weeks) or procaine penicillin (1.5 g IM: daily for 15 days).
Consultation with an Infectious Diseases physician is recommended in HIV positive patients regarding the need for lumbar puncture (LP) and interpretation of CSF pathology results if LP is performed.

Tertiary syphilis includes cardiovascular syphilis and neurosyphilis. Treatment is hospital based and requires benzylpenicillin (1.8 g IV: 4-hourly for 15 days).
If indicated, steroids may be administered concomitantly to reduce the likelihood of a Jarisch-Herxheimer reaction.

All newborn infants of mothers with syphilis should be carefully examined and investigated for evidence of congenital syphilis. The diagnosis of congenital syphilis is suggested by a positive *T. pallidum*-specific IgM; nontreponemal RPR antibody titres 4-fold higher than the mother's; positive PCR in mucosal lesion swabs, biopsy, tissue, CSF or placenta.

Following treatment the rate and level of fall in RPR is dependent upon when treatment commences:

Primary syphilis: RPR non-reactive in 12 months
Secondary syphilis: RPR non-reactive in 24 months
Latent/Tertiary syphilis: RPR may remain weakly reactive (<1:8)

In some patients RPR may persist at a low titre for a long period of time, sometimes for the life of the patient (serofast reaction).

Retreatment should be considered when:

- Clinical signs of syphilis persist
- Sustained four-fold increase in titre
- Failure of RPR to decrease four-fold in 1 year to <1:16.

Sources: Therapeutic Guidelines; Antibiotic
Available online at: http://www.tg.org.au.

National Management Guidelines for Sexually Transmitted Infections.
Available online at: http://www.sti. guidelines.org.au

