Key messages

- Syphilis rates are at epidemic levels in Aboriginal communities in regional WA, and in NT, SA and Qld.
- Syphilis continues to increase in men who have sex with men (MSM).
- Syphilis is an emerging epidemic in heterosexual men and women throughout WA.
- All pregnant women should be offered syphilis testing at the booking antenatal visit, and if residing in an outbreak area or otherwise at high risk, at 28, 36 weeks, delivery and 6 weeks post-partum.
- Most syphilis is asymptomatic. Don’t wait for symptoms to test!
- People presenting with symptoms consistent with infectious syphilis (genital ulcer or symptoms/signs of secondary syphilis) should be treated at time of first presentation.
- Be aware of non-genital presentations of infectious syphilis, e.g. rash, hair loss.
- Contacts of infectious syphilis should be treated at time of testing.

What specimens are required?

All patients including asymptomatic pregnant women at booking antenatal visit and 36 weeks (excludes asymptomatic pregnant women at 28 weeks, delivery and 6 week post-partum)

- Venous blood for syphilis, HIV and hep B serology. Consider hep C if at-risk.
- PCR swab of any genital lesion.
- FVU (male) or SOLVS (female) for chlamydia and gonorrhoea.
- Pregnancy test (females of child-bearing age not using long-acting reversible contraception).

Asymptomatic pregnant women at 28 weeks, delivery and 6 week post-partum

- Venous blood for syphilis.

Note:

✔ People who are diagnosed with STIs or HIV should be tested for syphilis at the time of, or within 4 weeks of, diagnosis (baseline) and 3 months later (after the window period).

✔ If the patient has clinical evidence of syphilis and their serology is negative, repeat testing after 2 weeks.

✔ Syphilis point of care testing (PoCT) is available in some health services in the Goldfields, Kimberley, Pilbara and Midwest. ALWAYS take venous blood for syphilis serology at the same time as the PoCT so rapid plasma reagin (RPR) can be measured before and after treatment.

Treatment guidance

✔ Empirically treat any person presenting with a genital ulcer or signs/symptoms of secondary syphilis at time of syphilis testing.

✔ Patients being treated for primary and secondary syphilis MUST have venous blood taken on the day treatment is commenced to provide an accurate baseline RPR for monitoring response to treatment.

✔ Repeat syphilis serology should be taken 3 and 6 months post-treatment to monitor the response to treatment. Serology may be repeated more frequently in patients at high risk of reinfection. If the RPR has not reduced at least 4-fold (i.e. by 2 titres) at 6 months post-treatment, repeat serology at 12 months post-treatment.

✔ Pregnant women should be treated with penicillin as per the schedule above, according to stage of infection, and referred for specialist advice. Pregnant women with penicillin allergy should be desensitised and subsequently treated.

✔ Contacts of infectious syphilis should receive empirical treatment on first presentation.

### Testing

All syphilis testing requires venous blood to be sent for syphilis serology to monitor response to therapy and identify reinfections.

<table>
<thead>
<tr>
<th>Who should I test?</th>
<th>Why should I test?</th>
<th>When should I test?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any person who has symptoms consistent with syphilis infection, e.g. genital ulcer, rash, hair loss, moist warty genital lesions (condyloma lata)</td>
<td>High level of clinical suspicion due to presence of symptoms</td>
<td>Immediately</td>
</tr>
<tr>
<td>Any asymptomatic person of any age requesting ‘an STI check-up’</td>
<td>The patient has requested it, so is likely to be at risk</td>
<td>Immediately</td>
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<tr>
<td>A sexually active Aboriginal young person under 35 years or a person of any age who has changed sexual partners in the last 12 months</td>
<td>This population is at higher risk for syphilis, especially in regional or outbreak communities</td>
<td>Six monthly*</td>
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<tr>
<td>Pregnant and post-partum women (living in or from the Goldfields, Kimberley, Pilbara and Midwest and other outbreak affected areas)</td>
<td>To prevent vertical transmission (congenital syphilis) and adverse outcomes</td>
<td>At booking; 28 weeks; 36 weeks; at delivery and 6-weeks postpartum</td>
</tr>
<tr>
<td>Pregnant and post-partum women (other at-risk women, e.g. partner change during this pregnancy, drug use, STI during this pregnancy or in past 12 months, male partner has changed partners and/or has sex with men)</td>
<td>To prevent vertical transmission (congenital syphilis) and adverse outcomes</td>
<td>At booking, 28–32 weeks and delivery</td>
</tr>
<tr>
<td>Pregnant and post-partum women (all other women)</td>
<td>To prevent vertical transmission (congenital syphilis) and adverse outcomes</td>
<td>At booking</td>
</tr>
<tr>
<td>A man who has sex with other men (MSM)</td>
<td>This population is at higher risk of syphilis</td>
<td>At least annually, or up to 4 times per year based on patient request or assessment as high risk (high-risk behaviour)</td>
</tr>
<tr>
<td>A contact of a known case of infectious syphilis</td>
<td>Contact of infectious syphilis</td>
<td>Immediately and 3 months after most recent sexual contact with known case</td>
</tr>
<tr>
<td>Returned overseas travellers from high prevalence countries (e.g. South-East Asia, Africa, New Zealand)</td>
<td>Travellers and fly-in-fly-out workers may be at higher risk of acquiring syphilis in high prevalence countries</td>
<td>Based on patient request or assessment as high risk (high-risk behaviour)</td>
</tr>
</tbody>
</table>

* Opportunistic testing is important in this priority population. Consider offering testing when they present for other health issues or for general health checks such as the 715 check.

### Treatment

#### Clinical presentation/diagnosis

- **Primary, secondary and early latent (without neurosyphilis)**
  - Benzathine penicillin 1.8g (= 2,400,000 units/2 prefilled syringes) intramuscularly, stat

- **Named contact of infectious syphilis**
  - Benzathine penicillin 1.8g (= 2,400,000 units/2 prefilled syringes) intramuscularly, stat

- **Late latent**
  - Benzathine penicillin 1.8g (= 2,400,000 units) intramuscularly, weekly for 3 weeks. If the 2nd or 3rd dose is delayed by more than 3 days, it is recommended to restart the 3 week course.

- **Tertiary**
  - Seek specialist advice

For a video on how to give a benzathine penicillin injection refer to www2.health.wa.gov.au/Articles/U_Z/WA-Syphilis-outbreak-response under New resources.

1. Jarisch-Herxheimer reaction is a common reaction to treatment in patients with primary and secondary syphilis. It occurs six to 12 hours after commencing treatment, and is an unpleasant reaction of varying severity with fever, headache, malaise, rigors and joint pains, and lasts for several hours. Symptoms are controlled with analgesics and rest. Patients should be alerted to the possibility of this reaction and reassured accordingly.
2. Neither benzathine penicillin nor aqueous procaine penicillin, at the doses recommended, achieve treponemicidal levels in CSF, and should not be used in treating neurosyphilis. Consult specialist for advice regarding treatment of neurosyphilis.
3. An appropriately experienced specialist should be consulted for patients with a true penicillin allergy because the alternative treatment, doxycycline, is a sub-optimal treatment and is contra-indicated pregnancy, breastfeeding, and children <9 years.
4. Benzathine benzlypenicillin (Bicillin L-A) is the treatment of choice and is available on the Emergency Drug Supply Schedule (Prescribers Bag) www.gov.au/medicine/item/11755Q