

## 15 Tidbits about Syphilis You May Not Know or Have Forgotten

- 1. Syphilis is only transmitted three ways: primary chancre (generally painless), secondary mucous patch, and secondary condylomata lata. Syphilis is spread by direct skin-to-skin contact with these infectious lesions -- NOT by exposure to sexual fluids.
- 2. Syphilis is very infectious! One out of three exposed will become infected. The blood test may not be positive until 7-10 days after the appearance of the primary chancre (which might be hidden in the mouth, vagina, or anus). This is why empiric treatment for exposed partners is important.
- 3. An untreated person is only infectious for the first year of infection when the manifestations above are present. Rashes present in secondary syphilis are not infectious as they are too dry and have too few spirochetes within lesions.
- 4. Syphilis is commonly spread via oral sex and condoms are generally not used for oral sex. Don't forget to look in the mouth for chancres and mucous patches!
- 5. Treponeme specific tests, such as the EIA & TPPA, stay positive for life on someone who has previously been infected with syphilis.\*
- 6. Pregnancy and autoimmune disorders can cause false positives with both EIAs and RPRs. It is a good idea to wait for the subsample result that your lab sends to the state lab before giving test results or treating low risk patients.
- 7. Syphilis can incubate for up to three months after exposure, during which time the patient will test negative until chancre presents. Once again, this is why empiric treatment is essential for partners from the past 90 days, even if they test negative.
- 8. In the natural history of *untreated* syphilis:
  - In 1/3 of patients the disease is arrested by the host, causing the serum RPR to be negative.
  - In 1/3 of patients the disease does not progress and serum RPR remains positive.
  - In 1/3 of patients the disease progresses to late syphilis with potentially serious sequelae and the serum RPR is usually positive.

The point of this is that verified appropriate treatment is essential since blood work cannot differentiate among these.\*

- 9. Syphilis and undiagnosed HIV infections go hand in hand. ALWAYS do an HIV test when you do a syphilis test. Per the Center for Disease Control, there is an estimated two to five-fold increase in the risk of acquiring HIV, if exposed to HIV when syphilis is present.
- 10. Taking various antibiotics can blunt a RPR titer, but only Bicillin L-A or a full course of doxycycline will cure syphilis.
- 11. The one preferred treatment for syphilis is Bicillin (benzathine penicillin G L-A *not* C-R). Bicillin is expensive and can be hard to find. Check with your local health department if you cannot find it. Only use doxycycline with non-pregnant patients, if you are confident the patient can be compliant with the full course.
- 12. If infected for less than one year, patients should receive one dose of Bicillin. If they have been infected for more than one year, or for an unknown duration, they should receive three doses of Bicillin spread one week apart. Determining staging and the necessary treatment is not always clear. We encourage you to seek consultation.
- 13. A patient is considered non-infectious and can resume sexual activity 10 days after the first Bicillin injection or full course of doxycycline is completed, presuming all lesions have healed and partners have also been tested and completed their therapy.
- 14. Be aware: Patients in the secondary stage of syphilis are most likely to experience a Herxheimer reaction in the first 24 hours after Bicillin administration. The symptoms can include fever and chills, myalgias, and malaise. This is not an allergic reaction to penicillin, but rather an immune response to the massive die off of syphilis bacteria. These symptoms clear spontaneously within 12 hours but can be minimized by good hydration and the use of NSAIDS or acetaminophen.
- 15. Both ocular syphilis and neurosyphilis can happen early in the course of infection. All patients with a lab confirmed diagnosis should be asked about changes in vision and hearing.

\*Julie Zink has access to DOH Syphilis registry for previous diagnosis, treatment and titer history. If she is unavailable, then call Kaely Glaze. The following staff can also help with staging/treatment advice and delivery of FREE Bicillin to your office:

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