Syphilis Testing Interpretation + Management Guidance at Elmhurst Hospital

"Syphilis Ab Total w/ reflex to RPR Titer" or "Syphilis screen"
TREPONEMAL TEST (+ve for life)

NONREACTIVE

-No serologic evidence of syphilis (most common) → no further action
-Early 1° syphilis (treponemal test often negative) → consider empiric treatment if high suspicion + repeat serology in 2-4 weeks
-Treated syphilis with seroreversion (more likely if treated early in course) → no further action

Reactive! Or Positive!

"RPR"
NONTREPONEMAL TEST
Rapid plasma reagin (RPR)

NONREACTIVE

"Treponema pallidum Ab (REFLEX)"
TREPONEMAL TEST (+ve for life)
Treponema pallidum particle agglutination (TPPA)

REACTIVE!

-Previously treated syphilis (confirm with patient and/or Dept. of Health) → no further action
-Untreated latent syphilis → offer treatment for late latent syphilis
-early 1° syphilis → consider empiric treatment if high suspicion + repeat serology in 2-4 weeks
-prozone reaction (rare; false negative due to presence of nontreponemal antibody) → alert microbiology lab and consider empiric treatment while waiting for further data + repeat serology
-prior exposure to endemic treponematoses (very rare) → offer treatment if no history of treatment, based on clinical syndrome

NONREACTIVE

-False positive initial treponemal test → if low clinical suspicion, no further action; if at risk for syphilis*, consider repeat in 2-4 weeks

*In high-prevalence areas, may represent partial treponemal seroreversion → consider treatment for late latent syphilis if untreated

REACTIVE!

reflexes to

"RPR TITER"
NONTREPONEMAL TEST
(will result as a titer such as 1:64)

-Untreated syphilis → offer treatment (stage based on history/exam)
-previously treated syphilis → if appropriate 4-fold decrease (1:64 → 1:16) no further action (unless clinical evidence of re-infection)**
-endemic treponematosis (very rare) → offer treatment based on clinical syndrome

**Serologic nonresponse (previously referred to as serofast) occurs when titers have decreased appropriately (4-fold in 12-24 months), but not reverted to "nonreactive." Generally does not require retreatment unless titers are rising, there is concern for re-infection, or if titers remain >/= 1:32 and there is concern for neurosyphilis.

Syphilis Treatment Guidance:

1°, 2°, early latent in nonpregnant adults:
PCN G 2.4 mil units IM x 1 dose
***Alt: Doxycycline 100mg BID x 14 days

Late latent, nonpregnant adults:
PCN G 2.4 mil units IM weekly x 3 doses
***Alt: Doxycycline 100mg BID x 28 days

Neurosyphilis/ocular syphilis:
PCN G 18-24 mil units per day IV x 10-14 days

1°, 2°, early latent in pregnant adults:
PCN G 2.4 mil units IM x 1 dose

Late latent, pregnant adults:
PCN G 2.4 mil units IM weekly x 3 doses

***Indications for alternative therapy: drug shortage, severe penicillin allergy