



February 10, 2011

Dear Colleague,

We are pleased to announce the publication of a Morbidity and Mortality Weekly Report titled “Discordant Results from Reverse Sequence Syphilis Screening — Five Laboratories, United States, 2006–2010” on February 11, 2011. The availability of automatable treponemal enzyme immunoassays (EIA) and chemiluminescence immunoassays (CIA) has led some laboratories to adopt a reverse sequence of screening in which a treponemal EIA or CIA is performed first followed by testing of reactive sera with a nontreponemal test such as the rapid plasma reagin (RPR) test or Venereal Disease Research Laboratory (VDRL) test.

In this report, data from five laboratories that used reverse sequence screening were analyzed to better understand the performance of treponemal EIA/CIA. Among sera reactive on initial screening with a treponemal EIA/CIA, 56.7% were discordant with a nonreactive RPR test. Among these discordant sera, 31.6% were nonreactive by confirmatory testing using another treponemal test (i.e., *Treponema pallidum* particle agglutination (TP-PA) test or fluorescent treponemal antibody absorbed (FTA-ABS) test). EIA/CIA reactive test results without both a reactive RPR/VDRL and second treponemal test are likely false positive and the diagnosis of syphilis is unlikely, especially in low risk populations. In populations with higher or unknown risk, providers should retest patients with an RPR test in several weeks. Patients with concordant reactive treponemal serologic results and a non reactive RPR/VDRL test are considered to have past or present syphilis. If previously treated syphilis cannot be documented, then these patients should be administered therapy according to the [2010 STD Treatment Guidelines](#).

CDC continues to recommend the traditional screening algorithm using a nontreponemal test (e.g., RPR or VDRL), with reactive nontreponemal tests confirmed by treponemal testing. However, if reverse sequence screening is used, reactive sera by a treponemal test should be tested reflexively with a quantitative nontreponemal test. When test results are discordant (i.e., reactive EIA/CIA and nonreactive RPR/VDRL), the specimen should be tested reflexively using the TP-PA test as a confirmatory treponemal test. Results from all serologic testing should be reported promptly and concurrently to the clinician and public health department.

We would appreciate your sharing this letter with other colleagues who might benefit from this information.

Sincerely,

/Gail Bolan/

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