Reverse Algorithm for Syphilis Diagnosis
(Announcement date: June 21, 2017)

EFFECTIVE AUGUST 1, 2017

Effective August 1, 2017 the WSLH will implement the “reverse” algorithm for the diagnosis of syphilis. This will change the way testing is performed and charged.

The traditional syphilis testing algorithm starts with a non-treponemal test (e.g. VDRL, RPR), followed by a treponemal test (e.g. FTA, TP-PA) if the non-treponemal test is reactive.

With the new reverse algorithm the initial test performed is a treponemal antibody test (Abbott Architect). If the specimen is reactive, a non-treponemal quantitative VDRL (titer) will be performed and an additional charge will be incurred. If the non-treponemal test is reactive, the results are interpreted as consistent with current or past syphilis infection. If the non-treponemal test is non-reactive, a second treponemal test (TPPA) is performed and charged. If this test is reactive, the results indicate past or potential early syphilis infection. If it is non-reactive, the presence of treponemal antibodies is not confirmed and the testing algorithm is inconclusive for syphilis infection. This may indicate that the initial treponemal test was a false positive or the patient has an early infection. The reverse algorithm is illustrated in Figure 1.

The reverse algorithm will identify past infections that would be undetected with the traditional algorithm, and has the potential to detect early infections sooner. Determination of current infections must be accompanied by a thorough clinical examination and evaluation of exposure history. As with all laboratory tests, results must be interpreted in conjunction with the patient’s history and clinical presentation.

Diagnostic Testing Information

- **Test Name:** Syphilis Diagnostic Algorithm
- **Test Code:** SS02012
- **Methodology:** Abbott Architect (Chemiluminescent microparticle immunoassay ; VDRL; Treponemal particle agglutination test (TP-PA)
- **Specimen types:** 1-3 ml serum or 10 ml vacutainer, no additives
- **Turn-around Time:** 1-4 Days
- **CPT Codes:** 86780 (Treponemal Antibody) Abbott Architect; 86593 (Quantitative Non-treponemal Antibody) VDRL Titer; 86780 (Treponemal Antibody) TPPA.
- **Price:** $40 Abbott Architect

If additional testing needed:

- **Price:** $20 VDRL
- **Price:** $30 TPPA
References


Figure 1. Reverse Syphilis Serology Testing Algorithm

From: APHL. Suggested reporting language for syphilis serology testing. 2015.

*Abbott Architect Immunoassay
^TPPA