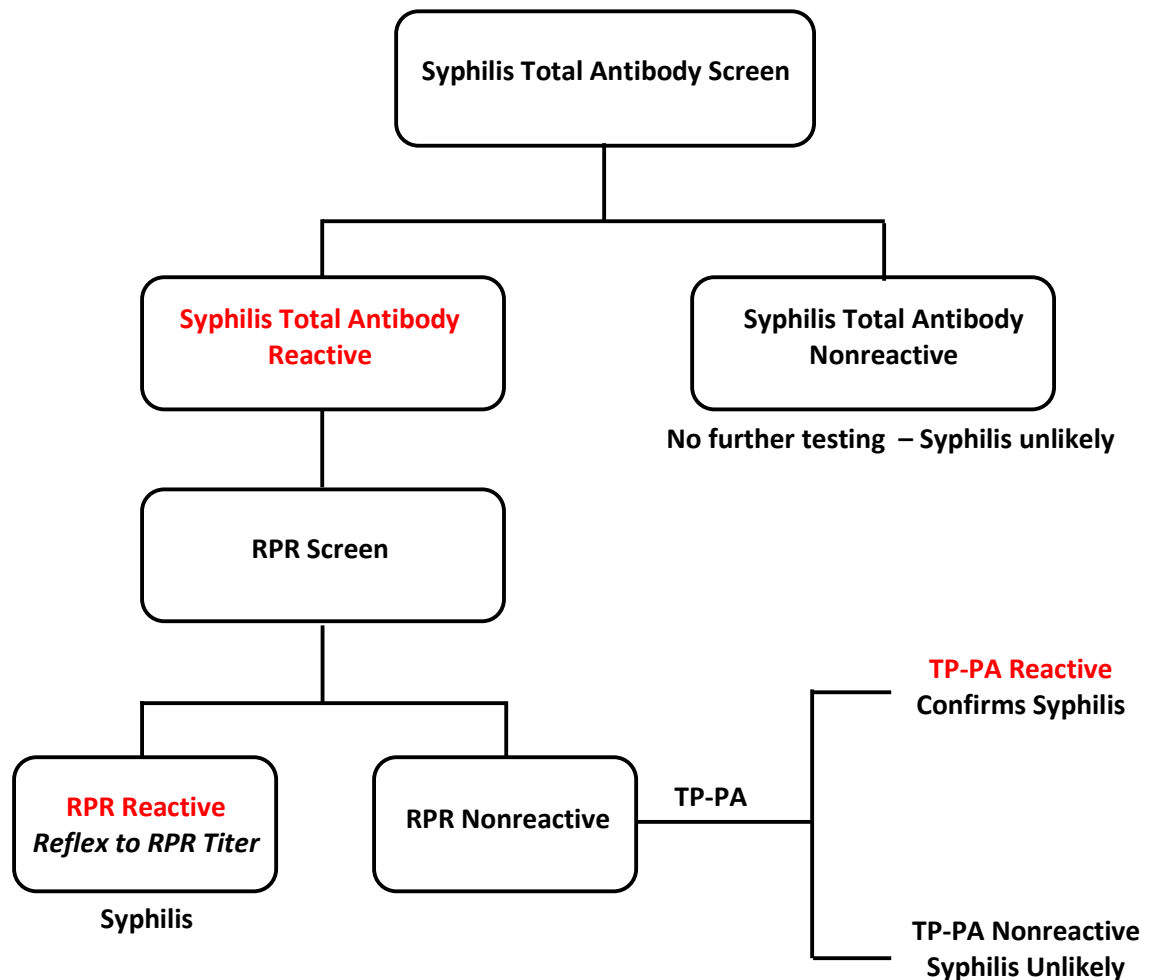


New Syphilis Testing Algorithm

Commencing January 11, 2022, Beaumont Laboratory will perform serological testing for syphilis using the reverse algorithm.

What is changing?

Beaumont Laboratory has historically performed syphilis serological testing using the traditional algorithm. The traditional algorithm entails screening using the Rapid Plasma Reagin (RPR) test, which is a non-treponemal assay that detects IgG antibody to lipoidal antigens that arise secondary to injury of cells infected with *Treponema pallidum*, the causative agent of syphilis. A specimen that is RPR positive is reflexed to the T. pallidum particle agglutination test (TP-PA). A positive TP-PA result confers a serological diagnosis of syphilis. The reverse algorithm was more recently developed to automate the testing process to increase laboratory throughput while maintaining high test sensitivity and specificity. All samples using the reverse algorithm are initially screened for **Syphilis Total Antibody** (IgG and IgM). Additional testing is performed if the screen is reactive (positive) as described below.



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Interpretation of syphilis reverse algorithm test results:

Note: Test results are not released to the medical record until all necessary testing is completed.

Total Antibody	RPR	TP-PA	Interpretation
Nonreactive	Not Performed	Not Performed	No serological evidence of syphilis
Reactive	Reactive	Not Performed	One of the following: <ul style="list-style-type: none">• Active syphilis (any stage)• Active syphilis undergoing treatment• Serofast state: Persistently reactive RPR test despite adequate treatment, generally at a low titer (e.g. 1:8).
Reactive	Nonreactive	Reactive	One of the following: <ul style="list-style-type: none">• Previously treated syphilis• Late stage syphilis
Reactive	Nonreactive	Nonreactive	False-positive Total Antibody screen. No significant serological evidence of syphilis.

Ordering Information

- Test Name: **Syphilis Total Antibody with Reflex**
- Epic Test Code: LAB8537
- Name of test on ordering requisition forms: Syphilis Screen
- Specimen Collection Requirement: One gold-top Serum Separator Tube (SST)

For additional information, access the Laboratory Test Directory at:

<http://beaumontlaboratory.com/test-lab-directory>

Date submitted: December 15, 2021

Submitted By: Gabriel Maine, PhD
Katie (Qian) Sun, PhD
Caitlin Schein, MD
Elizabeth Sykes, MD
Pathology & Laboratory Medicine

Joel Fishbain, MD
Paul Chittick, MD
Infectious Disease Service Line