

IMPROVED SYPHILIS REVERSE SCREENING CASCADE

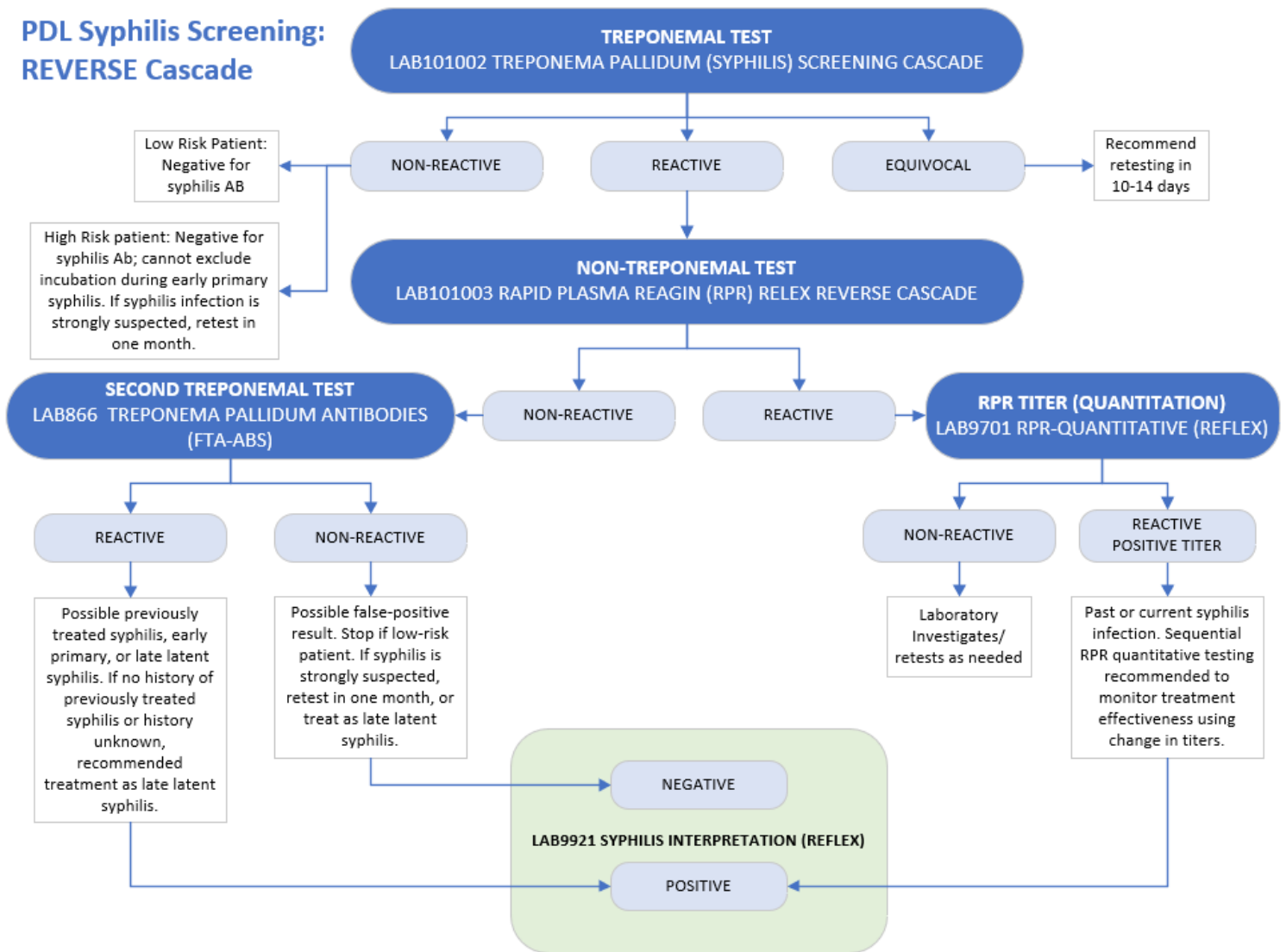
July 12, 2022

Effective July 19, 2022, Pacific Diagnostic Laboratories (PDL) will be adding the Syphilis Reverse Cascade as an orderable option for syphilis testing.

Key Benefits: The REVERSE Cascade offers earlier detection and a reduction of ambiguous results.

SYPHILIS REVERSE CASCADE

PDL Syphilis Screening: REVERSE Cascade



FOR MORE INFORMATION PLEASE CONTACT PDL CLIENT SERVICES AT 805-879-8100

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SYPHILIS REVERSE CASCADE OVERVIEW

Reverse Cascade Summary: Persons with a positive treponemal screening test should have a standard quantitative nontreponemal test with titer performed reflexively by the laboratory to guide patient management decisions. If the nontreponemal test is negative, the laboratory should perform a treponemal test different from the one used for initial testing, a treponemal assay based on different antigens than the original test, to adjudicate the results of the initial test.

The use of the reverse cascade is outlined in the Center for Disease Control (CDC) and Prevention Morbidity and Mortality Weekly Report (MMWR) Recommendations and Reports /Vol. 70/No. 4 July 23, 2021 Sexually Transmitted Infections Treatment Guidelines, 2021. STI Treatment Guidelines available on the CDC website:

<https://www.cdc.gov/std/treatment-guidelines/STI-Guidelines-2021.pdf>

Benefits for using the Reverse Cascade:

- The reverse cascade can detect syphilis in some patients with syphilis who would not have been identified if a nontreponemal test was used initially. This includes those with very early syphilis, those with prior treated syphilis, and those with late or late latent syphilis whose nontreponemal test has become nonreactive over time.¹
- The reverse sequence algorithm for syphilis testing can identify persons previously treated for syphilis, those with untreated or incompletely treated syphilis, and those with false-positive results that can occur with a low likelihood of infection.²
- Up to 30 percent of infected patients who progress to late-stage syphilis have negative results with nontreponemal tests.³⁻⁵
- The CDC, in its evaluation of data from four New York labs adopting a reverse algorithm approach, noted the potential to detect previously untreated syphilis at a higher frequency with the reverse screening algorithm.⁶
- Newer treponemal tests may also show increased sensitivity (especially if they detect both IgM and IgG antibodies) compared to nontreponemal tests in early- and late-stage disease.^{7,8}
- Multiple studies demonstrate that high quantitative index values or high signal-to-cutoff ratio from treponemal EIA or CIA tests correlate with TP-PA positivity

References:

1. JAMA. 2016 Jun;315(21):2328-37
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3. Diggory P. Role of the Venereal Disease Research Laboratory test in the detection of syphilis. Br J Vener Dis. 1983 February;59(1):8-10
4. Talwar S, Tutakne MA, Tiwari VD. VDRL titres in early syphilis before and after treatment. Genitourin Med. 1992 April;68(2):120-2
5. Pope V. Use of treponemal tests to screen for syphilis. Infec Med. 2004;21(8):399-404
6. Syphilis testing algorithms using treponemal tests for initial screening— four laboratories, New York City, 2005-2006. MMWR Morb Mortal Wkly Rep. 2008 August;57(32):872-5
7. Sena AC, White BL, Sparling PF. Novel Treponema pallidum serologic tests: a paradigm shift in syphilis screening for the 21st century. Clin Infect Dis. 2010 September;51(6):700-8
8. Ratman S. Laboratory diagnosis of syphilis. Can J Infect Dis. 2012;16(1):45-51

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FREQUENTLY ASKED QUESTIONS

What test should I order for the Syphilis Reverse Cascade?

PDL Syphilis Reverse Screening Cascade option: LAB101002 TREPONEMA PALLIDUM (SYPHILIS) SCREENING CASCADE

Does PDL still offer the Traditional Syphilis Testing cascade?

Yes. PDL Traditional cascade option: LAB494 RPR WITH REFLEX TO CONFIRMATORY SYPHILIS ANTIBODY AND RPR TITER

What test should I use to monitor a patient going through treatment?

For monitoring a patient through treatment (previously diagnosed/reactive) use: LAB10519 RPR WITH TITER (Monitoring)

What if my site performs the initial RPR, what test do I order for confirmation?

If a RPR has been performed and is reactive, the following test will complete the Traditional Screening Cascade: LAB9616 SYPHILIS ANTIBODY IGG/IGM WITH REFLEX TO RPR QUANTITATIVE

REVERSE CASCADE TEST INFORMATION

Test Name	Order/Interface Code	Test Code	Order LOINC	Insurance Price	
Treponema pallidum (Syphilis) Screening Cascade (Diagnostic)	LAB101002	1230119126	24110-9	\$60.65	
<i>Result name</i>		<i>Result Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
Syphilis Antibody IgG/IgM		1230011079	24110-9	86780	30200246
Test Name	Order/Interface Code	Test Code	Order LOINC	Insurance Price	
RPR – QUANTITATIVE (REFLEX)	LAB9701	1230111077		\$20.15	
<i>Result name</i>		<i>Result Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
RPR		1810249	20507-0	N/A	N/A
RPR Titer		1230014901	31147-2	86593	30200385
Test Name	Order/Interface Code	Test Code	Order LOINC	Referral Lab Price	
TREPONEMA PALLIDUM ANTIBODIES (FTA-ABS)	LAB866/SFTA	1230116436	5393-4	\$10.77	
<i>Result name</i>		<i>Result Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
T pallidum AB (FTA-AB)		1230016451	5393-4	86780	30200217
Test Name	Order/Interface Code	Test Code	Order LOINC	Insurance Price	
SYPHILIS INTERPRETATION (REFLEX)	LAB9921/SYPHIT	189543	56850-1	\$0	
<i>Result name</i>		<i>Result Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
Syphilis Interpretation		1230601917	56850-1	N/A	N/A
Test Name	Order/Interface Code	Test Code	Order LOINC	Insurance Price	
REFLEX RPR (REFLEX REVERSE CASCADE)	LAB101003	1230119127	20507-0	\$19.60	
<i>Result name</i>		<i>Result Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
RPR		1810249	20507-0	86592	30200206

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