

Lab Updates

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Sept/Oct 2010

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Changes in Syphilis Testing for Known Positive Patients

Syphilis is a chronic infection caused by the bacterium *Treponema pallidum*. The manifestations of the disease are variable, occurring in any one individual in different stages over time.

The diagnosis of syphilis is most commonly made by serologic testing, and is typically performed in two settings:

- Screening of patients at increased risk
- Evaluation of patients with suspected disease.

Serologic testing for syphilis screening is performed in the following scenarios:

- Suspected disease (eg, patient with a painless genital ulcer consistent with a syphilitic chancre)
- Screening of high-risk populations (eg, patients presenting to a STD clinic, inmates, persons with multiple sexual partners, men who have sex with men who engage in high-risk behaviors)
- Routine screening (eg, women attending antenatal or family planning clinics)

Routine screening of asymptomatic persons who are not at increased risk of syphilis is not recommended since most positive tests in this setting represent false positive and can lead to unnecessary anxiety for patients as well as increased costs and potential harm from inappropriate antibiotic use.

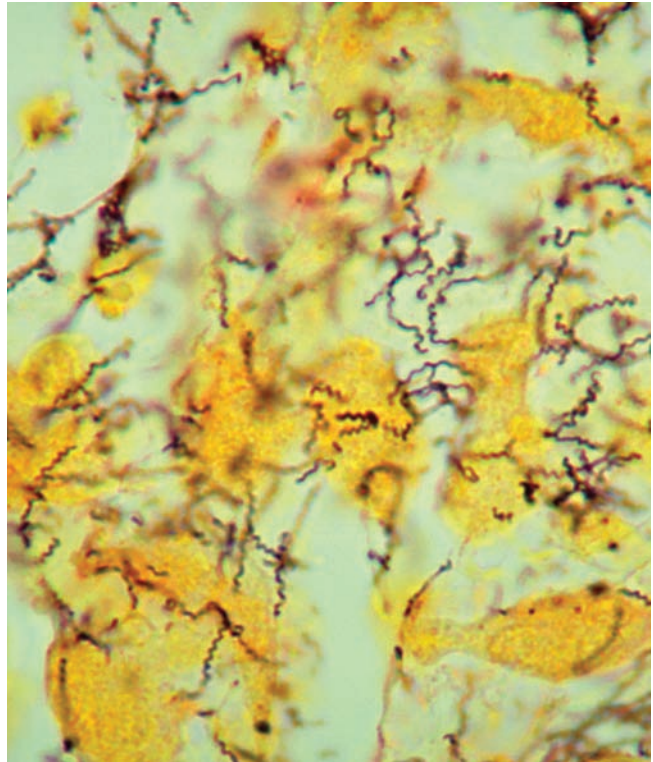


Image Courtesy of Department of Health and Human Services Public Health Image Library (PHIL)



Photo: Kevin Vance

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Please see August 2009 *Lab Updates* for the details and algorithms for the syphilis testing.

Currently all RPR test requests are screened for Syphilis IgG. All positive Syphilis IgG test results are automatically reflexed to the traditional RPR test with titers. If RPR is negative, the second Treponemal test (TP-PA) is performed. This is the best way for screening in suspected cases.

Once syphilis has been diagnosed, the response to treatment can be assessed by changes in the titer of reagent antibodies. It is important that the same testing method be used for all follow-up examinations since titers may vary by 1 to 2 dilutions if different tests are used. For these known cases, RPR test can be ordered directly.

Effective September 27, 2010 UMass laboratories will be offering RPR testing for known positive patients directly as a follow up. The ordering mnemonic will be “DIRCTRPR”. All positive DIRCTRPR results will be titered and will NOT be reflexed to TPPA test to confirm.

For any questions, comments and suggestions please contact:

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Changes in Coagulation Normal Ranges

Effective immediately the reference range for Ristocetin Cofactor will be 48 – 172 %.

The old reference range was 58-172 %.

Effective October 4, 2010 we have added pediatric reference ranges for PT and PTT

PT	Age	Normal Range
	< 2 days*	6.0 – 14.1 seconds
	2 days to 6 days*	8.4 – 13.5 seconds
	6 days to 4 months*	8.3 – 12.6 seconds
	> 4 months	9.6 – 12.4 seconds
PTT	Age	Normal Range
	< 2 days*	26.2 – 45.8 seconds
	2 days to 1 month*	21.3 – 46.4 seconds
	1 month to 4 months*	20.2 – 42.2 seconds
	> 4 months*	22.3 – 34.0 seconds

*The pediatric ranges were adapted from published pediatric reference ranges.



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This publication is made possible by Kevin Vance, Senior Director, Business Development and Marketing

Personalized Medicine



Will & Deni McIntyre/Photo Researchers, Inc

“Personalized medicine” refers to structuring, a patient’s treatment regimen, based on their individual genetic characteristics. This does not mean the creation of drugs or medical devices that are unique to each patient, but rather we offer the ability to use the patient’s own genetic composition to classify and stratify them into subpopulations that may differ in their susceptibility

to a particular disease as well as predict the response to specific drug regimens. Thus, using this genetic information various treatment modalities can then be focused on those patients who will benefit while sparing the patients from adverse side effects. The major difference is that we now have the genetic tools provided which are more precise than characterizing patients phenotypically and thus we are able to make better therapeutic decisions. Moreover a patient’s genetic variation can guide clinicians to select drugs or therapeutic modalities that minimize harmful side effects and guarantee more successful outcomes. In addition, a specific genetic makeup may indicate susceptibility to certain disease states before the patient actually manifests symptoms allowing caretakers to create an environment which may actually prevent the manifestation of a genetic predisposition. We can now point to actual applications, for example, genetic profiles can stratify groups of patients with breast cancer thus guiding physicians to select the best treatment protocol or in some cases forego expensive drugs with significant side effects. Based on a patient’s genetic makeup we can help determine the right dose of Warfarin, an important anticoagulant which can minimize bleeding risks while balancing a reduction in the risk of clot formation. Another genetic marker can predict whether patients with metastatic cancer of the colon will be subject to significant side effects without the benefit of the treatment protocol. These are just a few examples where personalized medicine may have a major role in selecting the appropriate treatment choice and decreasing the risk of side effects from various treatment modalities.

Personalized medicine is well suited to the medical challenges faced in the 21st century and will become a major focus in patient care in the future.