آغا خان یونیورسٹی ہسپتال
The Aga Khan University Hospital

THE AGA KHAN UNIVERSITY HOSPITAL
CLINICAL LABORATORIES

UPDATE
SYPHILIS SCREEN TEST

VOL. XXVI, No. 13, 2020, Revision 1.0

INTRODUCTION:

Syphilis, caused by the spirochetal bacterium *Treponema pallidum* subspecies *pallidum*, remains a challenging and complex infection to diagnose. Serologic tests for syphilis, with the detection of non-treponemal antibodies (cardiolipin antibodies) and specific antibodies against *T. pallidum* remain the mainstay of diagnosis. Treponemal Tests (TT) are primarily used to confirm the presence of treponemal infection while Non-Treponemal tests (NTT-RPR) are largely used for screening and to monitor treatment. Traditionally, syphilis serologic testing has been performed using a NTT such as the RPR or VDRL test, and confirmation of positive test by specific TT such as TPHA and FTA-Ab assays, all performed manually and as separate tests.

The new Syphilis Screen Test uses automated Chemiluminescent Immunoassay (CLIA) technology for the qualitative determination of specific total antibodies to *Treponema pallidum* in human serum samples. With the diagnostic specificity 99.9% (95% confidence interval: 99.75-99.98%) and sensitivity: 99.40% (95% confidence interval: 96.73-99.98%) the test is increasingly being used for screening. All positive screen tests are confirmed by NTT and TT tests before reporting. This algorithm is currently endorsed by the Association of Public Health Laboratories USA, the Health Protection Agency U.K, and the International Union against Sexually Transmitted Infections.

Clinical Microbiology section of Aga Khan University Hospital is pleased to inform the introduction of Syphilis Screen Test to allow improved diagnosis and turnaround time. All tests will be performed reflexively and will be reported based on the algorithm shown in Fig1.

The Syphilis Screen Test is primarily targeted for the adult screening purpose and is not recommended for:

- Treatment monitoring: RPR remains the test of choice and the clinical laboratory will continue to offer it as a stand-alone test.
- Neurosyphilis: VDRL on CSF sample is recommended test and offered by laboratory.
- Congenital syphilis: It is typically diagnosed based on maternal and neonatal/ infant RPR results and risk assessment (IgM assay is currently not available).

Sample Type: 3-5 ml of serum sample

Reporting Time: same day (cut-off 11 am).

For any further assistance please contact laboratory at: 021-34861608-1609.

PLEASE FILE FOR QUICK REFERENCE

Syphilis Screen Test