

Non-treponemal test (Rapid Plasma Reagin - RPR) screening for syphilis in Florianópolis in 2014

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Abstract

Syphilis is a sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum*. The transmission usually occurs through the sexual intercourse or mother-to-child in pregnancy. For treatment is recommended antibiotic use. The untreated disease has symptomatic and non-symptomatic alternating periods. Infection with *T. pallidum* produces antibodies that remain in the serum for long periods, so it is necessary to separate the reagent tests endurance (serological scar) and re-infection. Currently, the research of syphilis is performed by combining non-treponemal antigen test (VDRL and RPR) for screening and anti-treponemal antibody tests, such as the FTA-ABS, ELISA and RT-DPP SYPHILIS (immunochromatography), to define the clinical diagnosis. This study aims to investigate the meaning of the titer of sample found as result as the RPR test used for screening of syphilis in the patients tested at the Laboratório Municipal de Florianópolis (LAMUF) in 2014. 18,462 serum samples were analyzed from patients male and female, including pregnant women, regardless of age, from different neighborhoods. The methodology used at the LAMUF for screening of syphilis was the Rapid Plasma Reagin (RPR). Regarding the statistical analysis ANOVA was possible to demonstrate differences between treatments, and was considered a significance level of 5%. Among the samples, 5,839 (31.63%) were men and 12,623 (68.37%) were females whereupon 7,003 (37.93%) were pregnant women. According to the literature, titer of sample equal or higher than 1/16 in the RPR test are considered positive syphilis cases and it does not depend on confirmation by anti-treponemal test, whereas titer with less than 1/16 needs a anti-treponemal antibody test to confirm the result. In this study, was observed the occurrence of 393 (33.76%) cases with titer equal or higher than 1/16 where in 281 (24.14%) were males and 112 (9.62%) were female. Among all positive women tested by RPR test, 41 (3.52%) were pregnant. These data should be considered relevant and indicates the need to extend the surveillance on the syphilis cases in this city. Early diagnostic of this disease permits to break the transmission cycle and prevents its complications as well as helps to lower the prevalence and incidence of syphilis having a direct impact on the public health.

Keywords: Syphilis, Florianópolis, Serological Analysis, RPR

Incentive Agency: Secretaria Municipal de Florianópolis (SMS) – Prefeitura Municipal de Florianópolis - PMF