

**Title: FIRST RESULTS OF GENEXPERT MTB/RIF IMPLEMENTATION IN TUBERCULOSIS CONTROL PROGRAMME IN FLORIANÓPOLIS CITY/SC**

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**Abstract:**

Tuberculosis (TB) is the leading cause of mortality among infectious diseases. WHO estimates 9.0 million people developed the illness and 1.5 million people died from TB in 2013. TB control is hampered by diagnosis and treatment initiation delay. Although culture has high sensitivity and specificity, time-to-positivity is extremely prolonged. National TB Control Programme (Ministry of Health-Brazil) has provided to states and municipalities the Rapid Molecular Test (RMT) GeneXpert MTB/RIF (Cepheid) to improve TB diagnosis. Florianópolis Metropolitan Area (FMA) has 42.5 TB cases/100,000 population, but it is the second most prevalent state capital in people living with HIV/AIDS in Brazil, one of the factors that contribute to TB spread, specially resistant TB. The aim of this study is show the first results of GeneXpert MTB/RIF implementation in Tuberculosis Control Programme at Municipal Public Health Laboratory (LAMUF) in Florianópolis/SC. From January-May 2015, 427 samples were analyzed by RMT, 25 of which were positive (5.9%). Among all samples, 355 were also cultivated by Ogawa-Kudoh method with 17 positive samples by RMT. Seventy-two samples were processed by RMT but not by culture because in the TB diagnosis flowchart, only RMT is recommended for samples from new cases of non-vulnerable population. No rifampin resistance was detected. Only one sample was discordant between culture and RMT (RMT positive and culture negative). This patient had clinical findings consistent to TB and has been treated with standard regimen. Using culture as gold standard, RMT sensitivity and specificity were 100% and 99.7%, respectively. These results show that RMT can improve the TB control in Florianopolis, once RMT has high sensitivity and specificity in our samples and the results were available in few hours.

**Key-words:** tuberculosis, rapid molecular test, GeneXpert MTB/RIF.