

## **When TSTs and IGRAs Don't Add Up: Diagnosing Latent TB at the MUN Refugee Health Clinic**

**Authors:** Françoise Guigné\* MD CCFP, Christine Aubrey-Bassler MD CCFP, Leah Forsey NP F/AA, Petra Joller MD CCFP, Kari Brown MN NP, Pauline Duke MD FCFP (retired), Paul Coolican MD FCFP

**Institutional Affiliation:** Discipline of Family Medicine, Memorial University of Newfoundland

**Context:** In Newfoundland and Labrador (NL), Public Health uses Tuberculin Skin Test (TST) to screen refugees from high TB prevalence countries. Positive TST results are screened with chest x ray and Interferon- $\gamma$ -Release Assay (IGRA) QuantiFERON as there is a presumed false positive TST from BCG vaccination. The Regional Medical Officer of Health recommends treating refugee patients for latent tuberculosis infection (LTBI) with positive TST and IGRA. Memorial University of Newfoundland (MUN) Refugee Health Clinic (RHC), which started in September 2015, has routinely followed this recommendation. Studies suggest the risk of active TB with discordant TST and IGRA testing is less than when both are positive, however it is not zero, as is currently implied by only treating patients with both a positive TST and IGRA. How many patients in the MUN RHC have discordant TB screening results and were labelled as not having LTBI, who may in fact have some risk of developing reactivation of TB in the future?

**Objective:** Identify refugee patients seen through MUN RHC found to have discordant LTBI testing results and calculate the discord rate.

**Design:** Retrospective chart audit.

**Setting:** MUN RHC, St John's.

**Participants:** Refugee patients (Government Assisted and Privately Sponsored) with LTBI testing results collected through the MUN RHC between September 2015 to April 2019. **Intervention:** TST and IGRA tests to diagnose LTBI.

**Outcomes measured:** Concordant and discordant TST and IGRA result rates. Patients who need to be potentially recalled for counselling were identified.

**Results:** Most (94%) patients completed both TST and IGRA. A 36% discordance rate was observed. 40 patients with discordant TST and IGRA results were identified.

**Conclusion:** The higher discord rate between TST and IGRA results in the RHC needs to be better understood and studied. Given the small risk of active TB with discordant results and higher discord rate observed in the RHC, an interdisciplinary discussion with local respiratory, public health and infectious disease experts was recommended to establish a treatment algorithm for managing treatment in these situations.