

1476. Screening for Latent Tuberculosis Infection in Internationally Adopted Children in the era of Interferon-Gamma Release Assay (IGRA) Testing

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Background. Internationally adopted children are at 4-6 times the risk as US born children for latent Tuberculosis Infection (LTBI). Their diagnosis is complicated by confounding factors such as poor nutritional status and BCG vaccination. Pediatric recommendations are to screen with either an interferon gamma release assay (IGRA) or a tuberculin skin test (TST) upon arrival to the US. In children > 5 years of age who have received a BCG, IGRAs are more specific than the TST. However IGRAs in children <5years of age have been less well studied. We describe our experience in diagnosing LTBI in an International Adoption Clinic at a Children's Hospital in the era of IGRA testing.

Methods. Retrospective chart review of children evaluated at the Rainbow Babies and Children's Hospital International Adoption Clinic between January 2007-December 2012. Demographics, BCG status, TST and IGRA results at first and 6 month visit were collected. This study was approved by the University Hospitals IRB.

Results. 36 patients were included in the study. Mean age on arrival was 37.8 months. 23 children had both an IGRA and a TST performed, 6 patients only IGRA, 5 only TST, and for 2 patients no testing data was available. LTBI was diagnosed and treated in 15/36 patients. 13 had an initial TST placed (n = 12) or recently documented (n = 1) at the first visit, 9 of which had a positive TST. Six children were tested again or for the first time at the 6 month visit and all were positive. 4/6 had a conversion from an initial negative TST. 12/15 children had IGRA testing and only 2 were positive. These children were 2 siblings, > than 4 years of age, with no evidence of prior BCG whose mother died of TB disease. Only 6/15 children had evidence of BCG documented (visible BCG scar or documentation of the vaccine).

Conclusion. In internationally adopted children at our clinic, the result of a negative IGRA in the face of a positive TST did not influence the clinician's decision to treat for LTBI. The only 2 children with positive IGRA had significant family history for tuberculosis and were closer to the age in which the IGRAs have been better evaluated. More studies are needed to determine the best method of diagnosis of LTBI in this high-risk group and the role of IGRAs in this young population who is likely BCG vaccinated.

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