Abstract P14 Table 1

| Assay | QuantiFERON | | | |
|-----------|---------------|----------|----------|---------------|
| T-SPOT.TB | Result | Positive | Negative | Indeterminate |
| | Positive | 5 | 1 | 0 |
| | Negative | 6 | 103 | 1 |
| | Indeterminate | 0 | 1 | 0 |

Conclusion Overall there was a high concordance between the two IGRAs. Four of the 12 with positive IGRA results had a past history of TB making interpretation uncertain. The low rate of indeterminate results likely reflects the high CD4 counts among this patient group.

P15

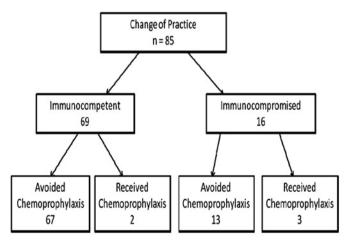
DOES AN INTERFERON-GAMMA RELEASE ASSAY CHANGE PRACTICE IN PATIENTS REFERRED TO CLINIC FOR POSSIBLE LATENT TUBERCULOSIS INFECTION?

doi:10.1136/thoraxjnl-2011-201054c.15

¹J F Tiernan, ¹S Gilhooley, ²M E Jones, ¹J D Chalmers, ¹C McSparron, ¹I Laurenson, ¹J Stevenson, ¹A T Hill. ¹Royal Infirmary of Edinburgh, Edinburgh, UK; ²Western General Hospital, Edinburgh, UK

Introduction and Objectives Suspected latent tuberculosis infection (LTBI) is a common reason for referral to TB specialist clinics. This is becoming increasingly frequent since the introduction of newer immunomodulatory drugs. Interferon-gamma release assays (IGRAs) are more sensitive and specific than tuberculin skin tests (TSTs) for diagnosing LTBI. NICE guidelines (2011) recommend considering IGRA testing to diagnose LTBI in those with positive TST or in whom TST may be less reliable. The aim of this study is to determine if IGRA changes practice in the management of cases referred to a TB specialist clinic for possible LTBI.

Methods A prospective study was carried out over a 29-month period. All adult patients who had three interventions [TST, chest x-ray (CXR) & QuantiFeron TB-Gold (QFT)] were included. The original decision to proceed with TB chemoprophylaxis was made by TB team consensus, based on the clinical history and TST alone. Cases were then analysed with the addition of QFT to determine if the QFT had altered management. An independent TB physician subsequently reviewed the cases. Each case was then analysed on



Positive TST group (n=118); Change of Practice in 77 cases (65%)
Immunocompromised group (n=68); Change of Practice in 16 cases (24%)

Abstract P15 Figure 1 Cases where change of practice occurred.

the presumption of QFT as a "gold-standard" vs the original clinician-based approach.

Results 204 patients were included. Sixty-eight were immunocompromised. One hundred and nine were referrals from other medical specialties, with the remaining 95 from other agencies. One hundred and eighteen patients had a positive TST and 84 had a negative TST. In those with positive TST, 35 (30%) had a positive QFT and 83 (70%) had a negative QFT. Practice changed in 77 (65%) cases with positive TST, all of whom avoided TB chemoprophylaxis due to negative QFT. Of the 68 immunocompromised patients, 16 (24%) underwent change of practice (Abstract P15 figure 1). There were no discrepancies between the original team and the independent TB physician. "Gold-standard" analysis revealed 12 discrepant cases (6%). No cases of active TB have developed in the study population, with maximum follow-up period of 36 months.

Conclusions This study demonstrates a significant change of clinical practice in the management of possible LTBI with the recent introduction of QFT testing. Our findings support the NICE 2011 recommendations with regard to TST-positive patients and immunocompromised patients.

P16

TB INFECTION IN THE UK INDIGENOUS WHITE ELDERLY POPULATION: A RETROSPECTIVE STUDY OF INTERFERON GAMMA RELEASE ASSAYS (IGRAS)

doi:10.1136/thoraxinl-2011-201054c.16

¹M Gautam, ²J Darroch, ³P Davies. ¹Aintree University Hospital, Liverpool, UK; ²Royal Liverpool University Hospital, Liverpool, UK; ³Liverpool Heart and Chest Hospital, Liverpool, UK

Introduction Recent data from The Health Protection Agency (HPA) UK indicates a further rise in the incidence of TB and about 15% cases of newly diagnosed cases of TB occur in those aged =65. Within the indigenous white population in the UK, it is the elderly population in whom TB is principally an issue. In contrast to previous studies looking at TST positivity, the application of IGRAs to detect infected cases of TB across various ethnic groups has not yet been reported. In addition to further quantify TB infection in the UK white population, this study also looked at IGRA positivity in the elderly population.

Methodology Retrospective study of IGRAs which were performed in cases where latent or active TB was suspected. Data were collected from regional IGRA database and individual hospital audit departments were approached to obtain ethnicity data.

Results Ethnicity data was available in 575/1119 cases and comprised 482 white British, 26 Asian/Asian British, 34 black/black British and 33 other. IGRAs results in the UK population are shown in the Abstract P16 table 1 below: The difference in the prevalence of a positive IGRA between the ethnic groups was statistically significant (p<0.001). Further age specific analysis was performed for the white British population for whom age data was available. Of these 468/482 cases, 47% were male (222/468) and the mean age was 50 years. The study demonstrated a significant association between age upon the occurrence of a positive IGRA result (p<0.001). The likelihood of a positive IGRA result was found to increase for older subjects. In the Mersey region, for the UK white

Abstract P16 Table 1

| Ethnic group | Positive IGRA, number (%) | Negative IGRA, number (%) | p Value |
|---------------------|---------------------------|------------------------------|---------|
| White British | 49 (10%) | 433 (90%) | < 0.001 |
| Asian/Asian British | 13 (50%) | 13 (50%) | |
| Black/Black British | 17 (50%) | 17 (50%) | |
| Other ethnicities | 13 (39%) | 20 (61%) | |