

### M37 DOES THE TUBERCULIN SKIN TEST INCREASE THE DETECTION OF TB INFECTION WHEN SCREENING HIV POSITIVE PATIENTS? THREE YEARS' EXPERIENCE IN A DISTRICT GENERAL HOSPITAL

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**Background** HIV infection is the strongest single risk factor for the development of active tuberculosis (TB) in individuals with latent TB infection (LTBI).<sup>1</sup> NICE guidelines recommend screening HIV-positive patients for LTBI with an Interferon Gamma Release Assay (IGRA), plus a Tuberculin Skin Test (TST) in patients with a CD4 count <200 cells/mm<sup>3</sup> if IGRA negative.

**Method** We began screening HIV-positive patients for LTBI in July 2011; this prospective study reports our 3 year data. Patients had an IGRA (T-SPOT. TB<sup>®</sup>), and a TST was performed in those with a negative result and a CD4 count <200 cells/mm<sup>3</sup>.

**Results** 116 HIV-positive patients were screened (Table 1):

**CD4 Count ≥200 Group** Of 88 patients, 4 (5%) had a history of previous TB infection and were excluded. 70/84 (83%) had a negative IGRA, 9/84 (11%) had a positive IGRA (3 had active TB and 6 LTBI) and 5/84 (6%) had inconclusive IGRA results. Of these, 4/5 had a repeat IGRA (2 positive, 1 negative, 1 awaited) and 1 was lost to follow up.

**CD4 Count <200 Group** Of 28 patients, 1 (4%) had a history of previous TB infection and was excluded. 24/27 (89%) had a negative IGRA and were referred to TB clinic for a TST. Of these, 18/24 (75%) had a negative TST, 3/24 (12.5%) did not attend and 3/24 (12.5%) are awaiting appointments. 2/27 (7%) had a positive IGRA and were treated for LTBI. One (4%) had an inconclusive IGRA result but did not attend follow up.

**Conclusions** Screening for TB in HIV is worthwhile, with a 12% detection rate in our cohort. Performing a TST did not detect any additional cases of TB infection in the CD4 <200 group. Performing this test is time-consuming, costly and inconvenient, and we suggest that screening should be with an IGRA alone. The detection rate of TB infection was lower in those with more advanced immunocompromise, which raises concern about the sensitivity of the screening tests.

Abstract M37 Table 1

|  |  |
|--|--|
| Male sex   | 60 (52%)                                 |
| Median age   | 40 years (range 22–79)                   |
| Ethnicity  |  |
| Black African                                      | 69 (60%)                                 |
| White UK   | 28 (24%)                                 |
| White other  | 10 (8.5%)                                |
| Asian  | 6 (5%)                                   |
| Black Caribbean                                    | 3 (2.5%)                                 |
| Median CD4 cell count                              | 370 cells/mm <sup>3</sup> (range 10–980) |
| No. with CD4 cell count ≥200 cells/mm <sup>3</sup> | 88 (76%)                                 |
| Median CD4 cell count                              | 430 cells/mm <sup>3</sup>                |
| Range (CD4 cell count)                             | 200–980 cells/mm <sup>3</sup>            |
| No. with CD4 cell count <200 cells/mm <sup>3</sup> | 28 (24%)                                 |
| Median CD4 cell count                              | 100 cells/mm <sup>3</sup>                |
| Range (CD4 cell count)                             | 10–190 cells/mm <sup>3</sup>             |

### REFERENCES

- 1 Treatment of latent tuberculosis infection in HIV infected persons. Akolo C, Adetifa I *et al.* Cochrane Database of Systematic Reviews 2010, Issue 1

### M38 HEALTH PROFESSIONALS' VIEWS OF TUBERCULOSIS COHORT AUDIT IN NORTH WEST ENGLAND

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**Introduction and objectives** Tuberculosis cohort audit (TBCA) was introduced across the North West in 2012 as recommended by NICE. The approach taken and the outcome measures of the 1,515 TB cases reviewed are presented in a companion abstract. TBCA over a large geographical area has not undergone formal qualitative evaluation in the UK. We conducted a qualitative evaluation to explore perceptions about implementation and impact of TBCA in the North West.

**Methods** One researcher conducted face to face, semi-structured, recorded interviews between 06/01/14 and 14/03/14 with 26 purposively sampled respondents from three groups involved in TBCA: (a) TB nurse specialists; (b) Consultant physicians; (c) Public health practitioners. Transcripts were analysed descriptively and thematically using the Framework Method. Themes were triangulated with eight key informants from the TBCA Steering Group.

**Results** Four themes were identified:

1. **Preconceptions:** Participants were optimistic about the potential of audit to improve practice but worried about time demands and scrutiny from colleagues.
2. **Experience of TBCA:** All groups felt engaged and appreciated TBCA. Nurses requested more engagement from consultant colleagues. Fears about time demands and scrutiny were not realised.
3. **Changes as a result of TBCA:** Improvements to practice were identified including harmonisation of approaches, increased HIV testing, and improved documentation. TBCA was felt to provide peer support and learning through discussion and a no-blame atmosphere.
4. **Looking Ahead:** Suggestions for further improvement were captured, such as more in-depth discussion around complex cases. If TBCA were to be discontinued (e.g. because of funding constraints), adverse consequences were predicted: e.g. disappointed and disenfranchised professionals, financial and patient harms.

**Conclusions** Overall, TBCA in the North West has led to the development of a unique and valuable community of practice. The interchange of experience and ideas across a large number of teams and professionals has enhanced mutual respect between different roles and a shared sense of purpose. TBCA is appreciated by health professionals who participate. Continuing success will require increased engagement of consultant physicians and public health practitioners, a secure ongoing funding stream and establishment of reporting mechanisms within the new commissioning structures.