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).[1] 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^3 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®), and a TST was performed in those with a negative result and a CD4 count <200 cells/mm^3.
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^3 (range 10–980)
No. with CD4 cell count ≥200 cells/mm^3	88 (76%)
Median CD4 cell count	430 cells/mm^3
Range (CD4 cell count)	200–980 cells/mm^3
No. with CD4 cell count <200 cells/mm^3	28 (24%)
Median CD4 cell count	100 cells/mm^3
Range (CD4 cell count)	10–190 cells/mm^3

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 and14/03/14 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:* Suggestionsfor further improvement were captured, such as more in-depth discussion around complex cases. If TBCA were to be discontinued (e.g. because of funding contraints), 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 an ongoing funding stream and establishment of reporting mechanisms within the new commissioning structures.

M39 SCREENING FOR TUBERCULOMAS IN PATIENTS WITH MILIARY TUBERCULOSIS – WHAT MODALITY OF IMAGING SHOULD WE BE USING?

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Introduction and objectives NICE guidance advises neuroradiology to investigate CNS signs in patients with miliary tuberculosis (TB). The aims of our study were to describe our population of patients with tuberculomas in the presence of miliary disease and identify any clues to the best radiological modality.
Methods The radiology and clinical history was retrospectively reviewed for all patients treated for miliary tuberculosis at one centre between 01/01/2009 and 31/12/2013.
Results 53/1650 (3.2%) of patients during this period were diagnosed with miliary (disseminated) tuberculosis. 27/53 (50.9%) underwent further neuroimaging. 10/53 (18.9%) miliary TB patients had evidence of tuberculomas on neuroimaging (M:F 6:4, age range 22:81). 2/10 had evidence of tuberculomas on both CT (2/2 with contrast) and MRI, 5/10 had a negative CT (2/5 with contrast) but an MRI result which revealed tuberculomas. 3 patients did not have a CT scan (MRI only). All 10 patients were HIV negative and had fully sensitive TB, 9/10 had neurological signs which warranted the subsequent neuroimaging.
Conclusion Tuberculomas are seen in a fifth of patients with miliary tuberculosis. Based on our findings, guidelines should be adapted to suggest that both use of contrast and MRI should be utilised preferentially.

M40 TACKLING POOR ATTENDANCE TO TUBERCULOSIS CLINIC – WHO, WHY AND WHAT CAN BE DONE

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Introduction Despite efforts to improve Tuberculosis (TB) services, disease rates remain high (UK national average 14.4 per 100,000). We believe one of the ongoing challenges is engaging patients in attending outpatient clinics for care. However, there is no current UK data evaluating poor attendance to TB clinic.
Aim To identify reasons for patient's not attending TB clinic, in order to implement service improvements and increase patient engagement.
Methods We conducted a prospective study reviewing the number of Did Not Attends (DNAs) to our TB clinic over a six-week period (April to June 2014). We evaluated data, usually obtained from patients who are contacted after they DNA, and cross referenced this with the trust electronic database. Data obtained included patient demographics, stage of TB treatment, route of referral, reasons for non-attendance and accessibility to clinic.
Results 63 of 385 patients (16% - 42 males, 21 females) did not attend their TB clinic appointments compared to 15% for non-TB respiratory appointments in this time. 64% were contactable (25 males, 15 females). Median age was 32 (range 17–78 years), which included 16 ethnicities and seven languages. 62.5% were follow-up appointments and 37.5% were new. 27.5% had TB previously. Stage of TB treatment included: completed (17.5%), current (25%), none (57.5%). Referral route included GP (40%), hospital (32.5%) and contact tracing (27.5%). 59% were aware of their appointment but were unable to attend due to other engagements. 41% stated they had not received a letter informing them of their appointment, 13% of these patients had relocated to another area and not updated their address. 8% of patients highlighted problems with transport leading to difficulties accessing the clinic.
Conclusions Communication to inform patients about appointments needs to be improved by both the referring and TB service. Utilising information technology and community links may improve patient education and therefore engagement with services. Experiencing the patient's journey will highlight further areas for development.

M41 RECURRENT TUBERCULOSIS AND ITS RISK FACTORS IN THE UK'S LARGEST TB CENTRE

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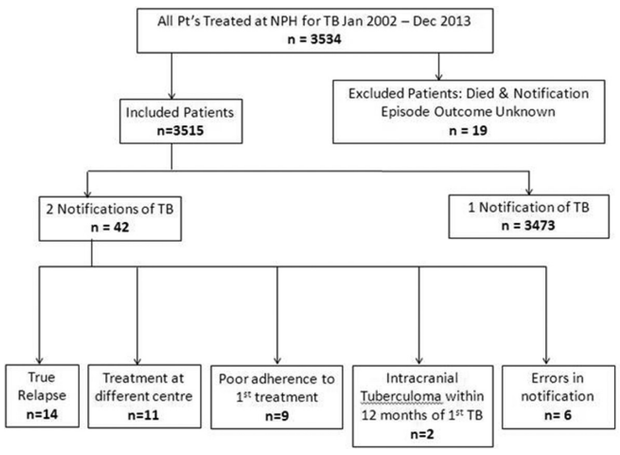
Objective To describe tuberculosis (TB) relapse/recurrence in patients treated at the UK's largest TB centre and identify characteristic which predicted recurrence.
Design Retrospective observational cohort study.
Methods All patients treated at our centre between 1st Jan 2002–31st Dec 2013 were identified from the local TB register. We excluded patients who died due to TB or whose outcome was unknown. Details of patients with more than one notification episode of TB were obtained from patient records.
Results In total, 3534 patients were treated for TB during the 12-yr period. After exclusions, 3515 patients were included in the study. Of these, 42 patients had two notifications of TB; none were treated more than twice.

Of these 42, we considered 14 to be true relapses/recurrences. 28 patients were considered on review not to have had a true relapse/recurrence: of these, 11 had their first treatment episode at a different centre; 9 were re-starts of treatment because of non-adherence during the first TB episode; 2 had intracranial tuberculomas diagnosed within 12 months of initial episode; 6 were errors in notification.

Of 14 patients considered to be true relapses/recurrence, 6 were microbiologically confirmed on relapse/recurrence and a further 8 were re-treated on clinical grounds. None exhibited drug resistance and 2 were HIV positive. The 14 true relapse/



Abstract M41 Figure 1