CSF Glucose was documented in 80% of cases and levels were low (<2.5 mmol/L) in 47%. TB PCR was performed on 15 samples (38%), 2 (13%) were positive. Five CSF samples were not sent for AFB or culture. No samples were smear positive, 26% of CSF samples were culture positive; one was Isoniazid resistant.

7 patients died (one death attributed to TB chemotherapy), 3 became fully dependent for all activities of daily living and 6 patients had significant cognitive or neurological deficit.

Conclusions CNS TB causes significant morbidity and mortality. CSF examination should always be performed if feasible. Imaging by MRI should be considered in all patients with suspected TB meningitis in view of the much higher diagnostic yield compared to CT.

P260

POTENTIAL IMPACT OF THE 2015 NICE CONSULTATION GUIDELINE FOR TUBERCULOSIS ON THE NUMBER OF CHILDREN ASSESSED AND TREATED FOR TB INFECTION AND DISEASE IN THE UK

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Background NICE Tuberculosis (TB) guideline 2015 recommends all children, regardless of BCG status, with Mantoux  $\geq 5$  mm induration receive treatment for latent TB once active TB has been excluded. The 2011 version defines a positive Mantoux as  $\geq 6$  mm (no prior BCG) and  $\geq 15$  mm (prior BCG). NICE 2011 recommends screening of household contacts of all cases of TB compared with the 2015 guideline which recommends screening of contacts of pulmonary TB only.

Objectives To establish the impact of the change in NICE recommendations on the number of children assessed and treated for latent TB infection (LTBI) or TB disease in our department.

Methods We performed a retrospective analysis of all children. Results 445 patients were referred, 75 with symptoms, 138 new entrants, 63 non-pulmonary contacts and 169 pulmonary contacts.

Of those with symptoms, 5 had positive Mantoux (NICE 2011) compared with 18 (NICE 2015). In this group 0/75 were treated for LTBI and 7/75 for TB disease.

Results of patients referred for contact tracing/new entrant screening are shown in Table 1. Two contacts with LTBI and 1 with TB disease (all IGRA positive) would have been missed by the 2011 guideline but identified in 2015.

**Abstract P260 Table 1** Number of patients referred for contact tracing or new entrant screening by Mantoux test result and TB disease status

Guideline	Mantoux	LTBI	TB disease	No LTBI or TB disease	Total
2011	Positive	9	3	2	14
	Negative	3	1	352	356
2015*	Positive	11	4	32	47
	Negative	1	0	259	260

Following NICE 2015 63 non-pulmonary contacts would not have been seen. None of these had LTBI or TB disease. Of the remaining 307 contacts/new entrants 47(15%) had a positive Mantoux of whom 11(4%) had LTBI and 4(1%) TB disease.

Conclusion 37% more children will be investigated and treated for TB infection/disease under the new NICE TB guideline. In a 12 month period in our clinic this represents 33 additional children with 1 extra case of TB disease and 2 cases of LTBI identified.

P261

# CHEMOPROPHYLAXIS FOR LTBI FOLLOWING MASS SCREENING IN THE WORKPLACE: UNEXPECTED OUTCOMES IN THE OVER 35S

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Introduction In 2014, over 500 workers in a local factory were screened for TB. 3 cases of active pulmonary TB were identified and seen in the next weekly TB Clinic. 128 workers were identified for further assessment by the local TB Service, of whom 100 were found to be IGRA-reactive. This was declared a major incident and a TB Action Group was set up to facilitate additional out-of-hours TB clinics.

Methods The local CCG commissioned the additional TB clinics at standard respiratory out-patient tariff: approximately 35 workers were to be assessed by 5 TB clinicians in 2 weekly sessions (18:00–21:00 – 20 min slots) for the first 2 weeks, so that by week 3, all workers would be assessed. As in the weekly TB Clinic, the TB Pharmacy Team would be present to dispense TB medication with drug information leaflets and contact details. Chemoprophylaxis for LTBI was offered to all workers with reactive IGRA and no evidence of active TB independent of their age despite NICE guidance.

Results Of the 100 workers with reactive IGRA: 18 did not attend; 82 were offered chemoprophylaxis of whom 15 declined treatment; 67 started chemoprophylaxis of whom only 33 completed 3 months treatment with rifampicin and isoniazid. The rate of completion of chemoprophylaxis in the eligible group was 9/35 (25.7%) compared to 24/47 (51.1%) in the over 35 year olds. There was a transient rise in liver enzymes in 1 worker aged over 35 but otherwise there were no other significant side-effects.

Discussion It is difficult to deny chemoprophylaxis for LTBI infection on the basis of age in a large screening event such as this when the average age is 40 (range 17–63) and the oldest member of the cohort tolerated chemoprophylaxis without significant side-effects. The reasons for reluctance to continue chemoprophylaxis in this cohort are poorly understood although lifestyle issues such as reducing alcohol consumption were perceived to be barriers to successful completion of treatment.

Conclusion Chemoprophylaxis for LTBI in this cohort was not tolerated in the eligible population. When undertaking mass screening, it is important to ensure that non-standard treatment is funded, if this is to be offered. Treatment of the over 35s significantly increased the workload and cost of this cohort, although uptake of chemoprophylaxis and successful completion was twice that of the workers aged 35 or less.

\*Non-pulmonary contacts not included in 2015 data.

### P262

### SKELETAL TUBERCULOSIS – A RETROSPECTIVE REVIEW AT TWO INNER CITY UK HOSPITALS

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Introduction and objectives Skeletal tuberculosis (TB) accounts for about 10% of extrapulmonary tuberculosis in Europe and the USA.<sup>1</sup> Outcomes and duration of treatment are less well described than pulmonary TB. We sought to identify characteristics and outcomes for patients diagnosed with skeletal TB in the two hospitals in our trust.

Methods Cases of TB treated in our NHS trust from 1/1/2011 to 31/12/2013 with site of disease including bone and/or spine were included. Data was obtained from the Enhanced TB Surveillance Database and case note review. Patients with a positive alternative diagnosis were excluded. TB affecting other body systems was defined as imaging abnormalities with exclusion of alternative diagnoses.

Results 34 patients (20 males), mean age 42.7 years, were identified. 29(85%) were born outside the UK. No patients were HIV positive (test not offered/refused in 11%). Sites of disease are shown in Table 1. 13(38%) of patients had the diagnosis made via non-surgical biopsy (either radiological or bedside), 6(18%) through surgical biopsy, and 5(15%) of patients having the diagnosis made through sampling from another site (usually pulmonary). The remainder of patients (10) either had a clinicoradiological diagnosis or the diagnosis made overseas, with 4 of those patients undergoing a non-diagnostic biopsy. Mean length of treatment was 10 months. At end of treatment 9(40%) of spinal TB patients had ongoing back pain and 4(33%) of patients with appendicular joint involvement had residual stiffness.

Skeletal sites of disease (Total patient number = 34)				
Isolated Spine	Number (Total = 22)			
Cervical	2 (10%)			
Thoracic	8 (36%)			
Lumbar	6 (27%)			
Sacral	0			
Multifocal	6 (27%)			
Other skeletal	Number (Total = 12)			
SI joint	3 (25%)			
Rib	2 (17%)			
Multifocal	2 (17%)			
Patella	1 (8%)			
Calcaneum	1			
Humerus	1			
Tibia	1			
Metacarpals	1			
Concurrent Extra-skeletal disease	Number			
Intra-thoracic	11 (32%)			
Extra-thoracic	3 (9%)			

Conclusions Bedside or image guided procedures have a role in diagnosis of skeletal TB; about 30% will also have pulmonary TB which may be more accessible for diagnosis. Sending for TB culture during surgery is important. After appropriate treatment a proportion of patients have residual pain and stiffness.

#### REFERENCE

 Pigrau-Serrallach C, Rodríguez-Pardo D. Bone and joint tuberculosis. Eur Spine J. 2013;22(Suppl 4):556–566

### P263

## DOES AGE INFLUENCE THE DIAGNOSTIC PATHWAY IN PATIENTS WITH TB LYMPHADENITIS?

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Introduction London has a high incidence of TB with north-east London having amongst the highest rates of TB in the U. K. Microbiological analysis is the gold standard method of diagnosis for patients with TB. A recent review of patients with TB lymphadenitis demonstrated that a significant proportion of these patients were diagnosed on histology alone. This proportion increased in patients over 60 years old, suggesting that tissue or fluid specimens were not routinely analysed in this group.

Aims To ascertain whether age is a factor in influencing the diagnostic pathway, particularly the use of invasive tests, in investigating individuals with lymphadenopathy in this high-incidence area for TB.

Methods A retrospective analysis was undertaken of patients with TB lymphadenitis from 2009 – 2011 diagnosed by the Barking, Havering and Redbridge Hospitals NHS Trust TB service using the London TB register.

Results 308 patients over the age of 18 years were identified with TB lymphadenitis. Of 281 patients between 18 – 65 years, 15.3% (43) had no specimen sent for analysis. 2/27 (7.4%) of patients >65 years had no specimen sent for analysis.

Conclusion Previous work has shown that in individuals over 60 years old, TB lymphdenitis was diagnosed predominantly on histology only (80%). Younger patients were more likely to have diagnosis confirmed on microbiology.

This study demonstrates that increasing age is not a factor in influencing the diagnostic pathway, particularly the use of invasive tests, in investigating patients with lymphadenitis. However, in spite of the high incidence of TB, the biopsy specimens obtained from patients from all age groups are not routinely sent for microbiological analysis.

#### P264

#### A MULTI-CENTRE REVIEW OF THE MANAGEMENT OF PULMONARY NON-TUBERCULOUS MYCOBACTERIAL (NTM) INFECTION IN HIV-NEGATIVE SUBJECTS

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Introduction Non-Tuberculous Mycobacteria (NTM) are ubiquitous in the environment meaning clinical, radiological and microbiological criteria are important in diagnosing NTM lung disease. A multicentre, retrospective review was performed to characterise NTM disease within our region and describe the outcomes of current management.

Methods All NTM positive sputum samples received by the National Mycobacterium Reference Laboratory (NMRL) from Imperial College NHS Healthcare and North West London

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