

were 70.97% (95%CI 58.05%-81.80%) and 56.32% (95CI 45.26%-66.94%) respectively. While for FluoroSpot, the AUROC was 0.906 (95 CI 0.856-0.957), the sensitivity and specificity of differentiating ATB from LTBI were 80.65% (95%CI 68.63% - 89.58%) and 88.51% (95%CI 79.88% - 94.35%) respectively.

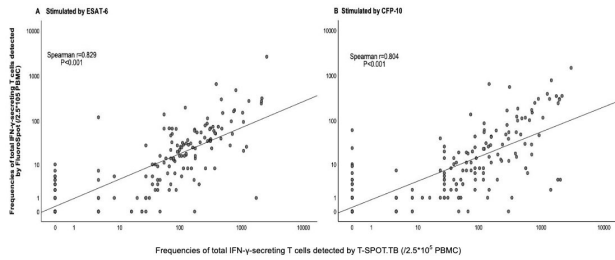


Figure 2. Correlation between the frequencies of total IFN- γ -secreting T cells detected by FluoroSpot assay and those of T-SPOT.TB. (A) Stimulated by ESAT-6. (B) Stimulated by CFP-10.

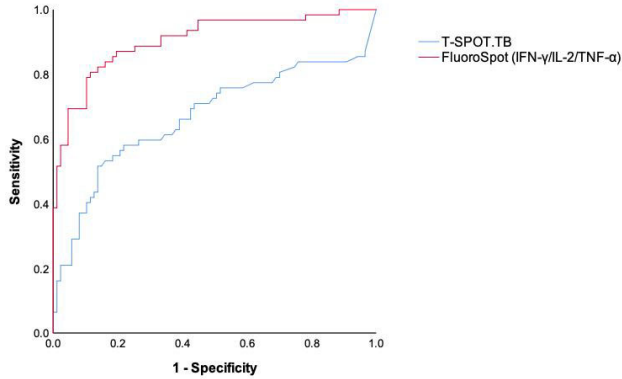


Figure 3. ROC curves and the corresponding AUROC for measurement of frequencies of specific T cells in differentiating ATB and LTBI under stimulation of ESAT-6 or CFP-10. The blue line is drawn with the frequency of IFN- γ -secreting T cells detected by T-SPOT.TB, and the AUC is 0.669 (95%CI, 0.574-0.765). The red line is drawn with combination of the frequencies and proportion of single IFN- γ -single IL-2-single TNF- α -dual IFN- γ /IL-2-dual IFN- γ /TNF- α -dual IL-2/TNF- α -secreting T cells detected by FluoroSpot, and the AUC is 0.906 (95% CI, 0.856-0.957).

Table 1. Diagnostic value of T-SPOT.TB and FluoroSpot for differentiating ATB from LTBI

	Sensitivity (%; 95%CI)	Specificity (%; 95%CI)	PLR (%; 95%CI)	NLR (%; 95%CI)	PPV (95%CI)	NPV (95%CI)
T-SPOT.TB	70.97(58.05-81.80)	56.32(45.26-66.94)	1.62 (1.22-2.16)	0.52(0.34-0.79)	53.66(42.30-64.75)	73.13(60.90-83.24)
FluoroSpot (IFN- γ /IL-2/TNF- α)	80.65(68.63-89.58)	88.51(79.88-94.35)	7.02(3.87-12.73)	0.22(0.13-0.37)	83.33(71.48-91.71)	86.52(77.63-92.83)

Conclusion. Compared with T-SPOT.TB, the IFN- γ /IL-2/TNF- α -FluoroSpot assay may be helpful to distinguish ATB from LTBI, and the results need to be verified by large sample prospective cohort study.

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1406. Hepatitis B and C Prevalence in Patients with Active and Latent Tuberculosis in an Ethnically Diverse Area of London, UK

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Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. North West London has one of the highest tuberculosis (TB) rates in the UK, at 24.8 per 10,000. The UK prevalence of hepatitis B virus (HBV) is 0.1-0.5% and for hepatitis C virus (HCV) is 0.5-1%. Chronic infection with HBV or HCV can lead to an increased risk of adverse treatment outcomes, such as drug-induced liver injury (DLI) in patients with active or latent TB. National guidelines recommend routinely screening for HBV/HCV prior to initiating TB treatment. Our objectives were to 1) evaluate the HBV/HCV screening practice in local TB clinics, 2) establish the prevalence of HBV/HCV in patients receiving TB treatment.

Methods. Retrospective analysis of laboratory and medical records of patients treated for active or latent TB identified from the London TB register and clinic records from 01/01/2018 to 31/12/2020 from London North West NHS Trust.

Results. 1409 patients received treatment for TB during the time period of interest; 574 (40.7%) had active disease and 835 (59.3%) had latent infection. 966/1409 patients (68.56%) were screened for HBV and HCV. 55.9% of the active TB group and 77.2% of the latent infection group were tested. 66 (6.8%) patients had isolated anti-HBc positivity, 22 (2.3%) were HBV surface antigen positive and 8 (0.8%) were

HCV-antibody positive. HBV surface antigens were more prevalent in active TB patients: 9/321 (2.80%) with active TB versus 13/645 (2.02%) with latent TB. 36/321 (11.21%) active TB patients had HBV core antibodies compared to 30/645 (4.65%) latent TB patients ($p < 0.001$). Three patients started antiviral treatment following their viral hepatitis diagnosis (one with HBV, two with HCV).

Conclusion. The prevalence of chronic HBV in the study population was higher than the estimated UK prevalence. Fifteen diagnoses of hepatitis were new, allowing specialist referral for monitoring of fibrosis and development of hepatocellular carcinoma. Three patients required hepatitis treatment. 6.8% of patients were positive for anti-HBc and therefore identified as being at future risk of HBV reactivation if requiring immunosuppressive therapies. TB disproportionately affects marginalised communities; screening for viral hepatitis in TB clinic represents an opportunity to target these hard-to-reach groups to maximise the impact of public health interventions.

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1407. The Latent Tuberculosis Infection Cascade of Care during the COVID-19 Pandemic Response in a Mid-Sized US City

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Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. The COVID-19 pandemic response may unintendedly disrupt multiple public health services, including tuberculosis control programs. We aimed to assess the cascade of care of latent tuberculosis infection (LTBI) in an urban US city during the COVID-19 pandemic response.

Methods. We conducted a retrospective cohort study of adult patients who presented for LTBI evaluation at the Hamilton County Public Health Tuberculosis Clinic in Ohio between 2019 and 2020. We defined 01/2019 to 02/2020 as the pre-COVID-19 response period, and 04/2020 to 12/2020 as the COVID-19 pandemic response period. We reviewed electronic medical records and extracted sociodemographic information, medical history, and follow-up and treatment data to define steps within the LTBI cascade of care. Logistic regressions were used to assess factors associated with LTBI treatment acceptance and completion, adjusted by potential confounders and COVID-19 period.

Results. Data from 312 patients were included. There was a significant decrease in the number of monthly LTBI referrals (median, 18 vs. 8, $p=0.02$) and LTBI evaluations (median, 17.5 vs. 7, $p < 0.01$) during COVID-19. There was a decrease in the proportion of immigrants as indication for LTBI testing (30% vs. 9%; $p < 0.01$), and an increase in LTBI diagnoses based on interferon-gamma release assay (IGRA; 30% vs. 49%; $p < 0.01$) during COVID-19. The proportion of people who were recommended LTBI treatment was similar before and during COVID-19 (76% vs. 81%, $p=0.41$), as well as the LTBI treatment acceptance rates (56% vs. 64%, $p=0.28$), and LTBI treatment completion rates (65% vs. 63%, $p=0.85$). In multivariate analysis, LTBI treatment acceptance was associated with Hispanic ethnicity, younger age, male sex, IGRA use, no comorbidities, and non-healthcare occupation, independent of COVID-19 period. LTBI treatment completion was associated with taking a rifamycin-containing regimen, independent of COVID-19 period.

Conclusion. We observed a significant decline in the number of monthly LTBI referrals and evaluations during COVID-19. Our findings indicate an unintended negative impact of the COVID-19 response in LTBI screening efforts in our region. LTBI treatment acceptance and completion rates were not affected during COVID-19.

Disclosures. All Authors: No reported disclosures

1408. Population-based Nontuberculous Mycobacteria Surveillance in Four Emerging Infections Program Sites, October 2019–March 2020

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Session: P-80. Tuberculosis and other Mycobacterial Infections

Background. Nontuberculous mycobacteria (NTM) cause pulmonary (PNTM) and extrapulmonary (ENTM) disease. NTM infections are difficult to diagnose and treat; environmental exposures occur in both healthcare and community settings. Few population-based studies describe NTM disease epidemiology. Current data indicate PNTM disease and ENTM skin and soft tissue infections are increasing. We describe findings from a multi-site pilot of population-based NTM surveillance.