

Changes to LTBI Screening in New Diagnoses of HIV during the COVID-19 Pandemic

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BACKGROUND

The British HIV Association recommends screening for latent tuberculosis infection (LTBI) using an interferon gamma release assay (IGRA) in all persons with HIV (PWH) from:

- Medium and high-risk tuberculosis incidence countries
- Low risk countries with additional tuberculosis risk factors (Table 1).

The COVID-19 pandemic caused significant disruption to HIV/TB services.

AIM

We aimed to compare the percentage of newly diagnosed PWH screened for LTBI, prior to and during the first wave of the COVID-19 pandemic.

METHODS

- Retrospective case note review of all new diagnoses of HIV attending a central London HIV service over a 2-year period.
- Data was collected 'pre-COVID-19' (01/03/2019 – 28/02/2020) and 'during-COVID-19' (01/03/2020 – 30/03/2021).
- Risk of TB was determined by Public Health England estimates of number and rate of TB cases by country and WHO region.
- PWH were risk categorised: medium and high-risk TB countries, and low risk countries with additional TB risk factors (Table 1).
- Those with active TB symptoms (chronic cough, fever, night sweats and/or weight loss) or previous TB were excluded from the analysis.
- Comparisons between time periods and risk-factor groups were appropriately undertaken using Chi-squared or Fisher's exact tests.

RESULTS

- 86 new diagnoses of HIV were identified: 53/86 (62%) 'pre' and 33/86 (38%) 'during' COVID-19.
- Median age was 36 years (range 17-72) and 67/86 (78%) were male.
- Absolute CD4 count was ≤ 200 cells/ μ L in 22/86 (26%) individuals.
- 34/86 (40%) were eligible for LTBI screening, of which 24/34 (71%) were screened over the two-year period, all using an IGRA. No statistically significant differences were seen in the number screened between time periods (Table 1).
- Overall, more patients who presented with a geographical tuberculosis risk were screened than those from low-risk groups with additional tuberculosis risk factors (78% vs. 43%; p value=0.16) (Table 1).
- Of those screened, 3/24 (12.5%) were positive, all from medium and high-risk countries.

Table 1. Number screened for LTBI based on risk category and year

	Total screened	Number screened in 2019-2020, n=17	Number screened in 2020-2021, n=7	p-value
Total eligible for screening, n=34	24/34 (71%)	17/23 (77%)	7/11 (63%)	0.54
Medium-high risk country, n=27	21/27 (78%)	14/17 (82%)	7/10 (70%)	0.64
Low risk country with additional TB risk factors, n=7	3/7 (43%)	3/6 (50%)	0/1 (0%)	1

***Additional TB risk factors include:** PLWH with CD4+ cell counts <200 cells/ mm^3 , recent exposure to a known TB case, Diabetes mellitus, Stage 4/5 chronic kidney disease, immunosuppressant agents, Travel to or periods of time spent in medium or high-incidence countries (>12 months), History of working in medical settings in countries with medium or high TB incidence, injecting drug use

CONCLUSIONS

- A decline in the number of new diagnoses of HIV was seen during the first wave of the COVID-19 pandemic without significant changes in LTBI screening patterns.
- Clinicians should be aware of the need to screen those with additional tuberculosis risk factors, regardless of geographical tuberculosis risk.

THINK
TEST
TREAT **TB**

Without treatment, 1 in 10 people with latent TB infection will develop TB disease.



Reference: Centres for Disease Control and Prevention (2022). <https://www.cdc.gov/thinktesttreattb/>