TB. However, limited data exists on their performance among HIV-TB co-infected positive patients is challenging. Tests based on the detection of mycobacterial lipoarabinomannan (LAM) in urine have emerged as potential point-of-care tests for TB. However, limited data exists on their performance among HIV-TB co-infected patients from Southeast Asian countries.

Methods. We prospectively recruited HIV-positive adult patients with CD4 count less than or equal to 200/mm$^3$ and symptoms suspected of active TB from two tertiary hospitals between December 2015 and March 2017. Freshly collected urine was applied to the Determine®-TB LAM Ag test strip (4 bands of graded intensity), using grade 1 cutoff. Diagnostic accuracy of urine LAM strip test were assessed against microbiological reference standard, defined as positive Mycobacterium tuberculosis cultured from one or more clinical specimens (definite TB) or composite reference standard including definite TB and probable TB, defined as those have symptoms consistent with TB and response to anti-TB treatment.

Results. A total of 280 patients were enrolled. Of whom, 72 (25.7%) and 65 (23.2%) had definite and probable TB. Amongst those with definite TB, L-FAM test gave a sensitivity of 75.0% (95% CI 63.9–83.6), specificity of 86.0% (95% CI 79.4–90.8) and accuracy of 82.3% (95% CI 76.7–88.6). When compared with the composite reference standard, the test yielded a lower sensitivity (61.3%, 95% CI 53.0–69.1) and accuracy (73.9%, 95% CI 65.8–81.7), with equal specificity. The test showed the highest sensitivity (90.5%, 95% CI 77.9–96.2) and accuracy (85.9%, 95% CI 79.2–90.7) but lower specificity (84.0%, 95% CI 75.6–89.9) in HIV-infected patients with CD4 count less than 50/mm$^3$. The sensitivity of the combined L-FAM and spurt microscop}